

**FAIRFAX COUNTY
BOARD OF SUPERVISORS
March 1, 2016**

AGENDA

- | | |
|-------|-------------------------------------------------------------------------------|
| 8:00 | Reception for Alternative Dispute Resolution Month, Conference Reception Area |
| 8:30 | Reception for Woman's History Month, The Forum |
| 9:30 | Presentations |
| 10:00 | Report on General Assembly Activities |
| 10:10 | Items Presented by the County Executive |

**ADMINISTRATIVE
ITEMS**

- | | |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Additional Time to Commence Construction for Special Exception SE 2012-PR-012, TD Bank (Providence District) |
| 2 | Designation of Plans Examiner Status under the Expedited Land Development Review Program |
| 3 | Authorization to Advertise a Public Hearing for a Sewer Ordinance Amendment to Revise the Sewer Service Charges, Base Charges and the Equivalent Flow Factor and to Maintain the Availability Charges and Fixture Unit Charge |
| 4 | Resolution for Endorsement of Bellview Road to Be Considered for Cut-Through Measures as Part of the Residential Traffic Administration Program (Dranesville District) |
| 5 | Authorization to Advertise Publication of the FY 2017 Budget and Required Tax Rates, the FY 2017 Effective Tax Rate Increase, and the Advertised Capital Improvement Program for Fiscal Years 2017-2021 (With Future Fiscal Years to 2026) |

ACTION ITEMS

- | | |
|---|----------------------------------------------------------------------------------------------------|
| 1 | Approval of an Off-Site Parking Request for 6862 Elm Street (Dranesville District) |
| 2 | Calendar Year 2016 Forest Pest Management Program |

**FAIRFAX COUNTY
BOARD OF SUPERVISORS
March 1, 2016**

**ACTION ITEMS
(Continued)**

- | | |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Grant Agreement Between the Virginia Department of Environmental Quality and Fairfax County for the Accotink Tributary at Wakefield Park, South; Accotink Tributary at Wakefield Park, North; Paul Spring Branch at Gilbert McCutcheon Park; Colony Park; Accotink Tributary at Daventry; Difficult Run at Oakton Estates; Inverchapel Road Outfall Rehabilitation; and Flatlick Branch, Phase I Projects (Braddock, Mason, Mount Vernon, Springfield, and Sully Districts) |
| 4 | Approval of the Disease Carrying Insects Program |
| 5 | Approval of Project Funding Adjustments for the Transportation Priorities Plan |
| | |
| 10:20 | Matters Presented by Board Members |
| 11:10 | Closed Session |
| | |
| 2:30 | <i>Snowzilla Snow Summit</i> |

PUBLIC HEARINGS

- | | |
|------|--------------------------------------------------------------------------------------------------|
| 3:30 | Public Hearing on SEA 79-D-071-02 (The Tea Center, LLC) (Dranesville District) |
| 3:30 | Public Hearing on SE 2015-SU-010 (Claudio A. Vargas) (Sully District) |
| 3:30 | Public Hearing on SE 2015-SP-022 (Eileen Meade DBA Meade Family Daycare) (Springfield District) |
| 3:30 | Public Hearing on RZ 2015-SP-007 (MRD Properties LLC) (Springfield District) |
| 3:30 | Public Hearing on PCA 2011-PR-023/CDPA 2011-PR-023 (Cityline Partners LLC) (Providence District) |



Fairfax County, Virginia

BOARD OF SUPERVISORS

AGENDA

**Tuesday
March 1, 2016**

9:30 a.m.

PRESENTATIONS

Presentation to Fairfax County of a check from the United Way of the National Capital Area representing the amount that was contributed through the Fairfax-Falls Church Community Impact Fund in 2015.

SPORTS/SCHOOLS

- CERTIFICATE – To recognize the James Madison High School volleyball team for winning the Virginia 6A state championship. Requested by Supervisor Hudgins.

DESIGNATIONS

- PROCLAMATION – To designate March 2016 as Alternative Dispute Resolution Month in Fairfax County. Requested by Supervisor Cook.
- PROCLAMATION – To designate March 2016 as Women's History Month in Fairfax County. Requested by Chairman Bulova.
- PROCLAMATION – To designate March 7-14, 2016, as Restaurant Week in Fairfax County. Requested by Supervisor Herry.

STAFF:

Tony Castrilli, Director, Office of Public Affairs
Bill Miller, Office of Public Affairs

Board Agenda Item
March 1, 2016

10:00 a.m.

Report on General Assembly Activities

ENCLOSED DOCUMENTS:

None. Materials to be distributed to the Board of Supervisors on March 1, 2016

PRESENTED BY:

Supervisor Jeff McKay, Chairman, Board of Supervisors' Legislative Committee
Edward L. Long Jr., County Executive

Board Agenda Item
March 1, 2016

10:10 a.m.

Items Presented by the County Executive

Board Agenda Item
March 1, 2016

ADMINISTRATIVE - 1

Additional Time to Commence Construction for Special Exception SE 2012-PR-012,
TD Bank (Providence District)

ISSUE:

Board consideration of additional time to commence construction for SE 2012-PR-012, pursuant to the provisions of Sect. 9-015 of the Zoning Ordinance.

RECOMMENDATION:

The County Executive recommends that the Board approve twelve (12) months additional time for SE 2012-PR-012 to December 18, 2016.

TIMING:

Routine.

BACKGROUND:

Under Sect. 9-015 of the Zoning Ordinance, if the use is not established or if construction is not commenced within the time specified by the Board of Supervisors, an approved special exception shall automatically expire without notice unless the Board approves additional time. A request for additional time must be filed with the Zoning Administrator prior to the expiration date of the special exception. The Board may approve additional time if it determines that the use is in accordance with the applicable provisions of the Zoning Ordinance and that approval of additional time is in the public interest.

On June 18, 2013, the Board of Supervisors approved Special Exception SE 2012-PR-012, subject to development conditions. The application was approved in the name of TD Bank, National Association, for the purpose of permitting a drive-in financial institution within the C-5 zoning district for property located at 7230 Arlington Boulevard, Tax Map 50-3 ((5)) (5) 501 (see Locator Map in Attachment 1). The drive in financial institution, a Category 5 special exception use, is permitted pursuant to Section 4-504 4. E. of the Fairfax County Zoning Ordinance. SE 2012-PR-012 was approved with a condition that the use be established or construction commenced and diligently prosecuted within thirty (30) months of the approval date unless the Board grants additional time. The development conditions for SE 2012-PR-012 are included as part of the Clerk to the Board's letter contained in Attachment 2.

On November 16, 2015, the Department of Planning and Zoning (DPZ) received a letter dated November 13, 2015, from Frederick R. Taylor, agent for the Applicant, requesting eighteen (18) months of additional time. On January 29, 2016, DPZ received a letter dated January 29, 2016 revising the request to twelve (12) months of additional time

Board Agenda Item
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(see Attachment 3). The approved Special Exception will not expire pending the Board's action on the request for additional time.

Mr. Taylor originally stated that a sight waiver request to the Virginia Department of Transportation (VDOT) was pending, delaying the approval of the site plan and the issuance of a building permit. The waiver has since been approved by VDOT, and the request for additional time was revised to twelve (12) months to finalize the approval of the site plan, obtain a building permit, and commence construction.

Staff has reviewed Special Exception SE 2012-PR-012 and has established that, as approved, it is still in conformance with all applicable provisions of the Fairfax County Zoning Ordinance to permit a drive-in financial institution in the C-5 zoning district. Further, staff knows of no change in land use circumstances that would affect compliance of SE 2012-PR-012 with the special exception standards applicable to this use, or which should cause the filing of a new special exception application and review through the public hearing process. The Comprehensive Plan recommendation for the property has not changed since approval of the Special Exception. Finally, the conditions associated with the Board's approval of SE 2012-PR-012 are still appropriate and remain in full force and effect. Staff believes that approval of the request for twelve (12) months of additional time is in the public interest and recommends that it be approved.

FISCAL IMPACT:

None

ENCLOSED DOCUMENTS:

Attachment 1: Locator Map

Attachment 2: Letter dated June 19, 2013, to Frederick R. Taylor

Attachment 3: Letter dated November 13, 2015, to Kevin Guinaw, and letter dated January 29, 2016, to Stephen Gardner

STAFF:

Robert A. Stalzer, Deputy County Executive

Fred R. Selden, Director, Department of Planning and Zoning (DPZ)

Barbara C. Berlin, Director, Zoning Evaluation Division (ZED), DPZ

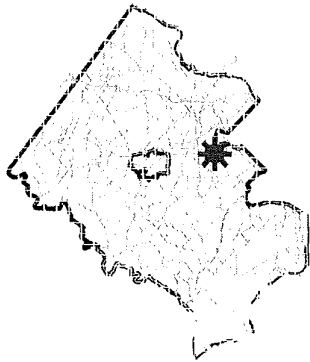
Kevin J. Guinaw, Chief, Special Projects/Applications/Management Branch, ZED, DPZ

Denise James, Chief, Environment and Development Review Branch, Planning Division, DPZ

Stephen Gardner, Staff Coordinator, ZED, DPZ

Special Exception

SE 2012-PR-012

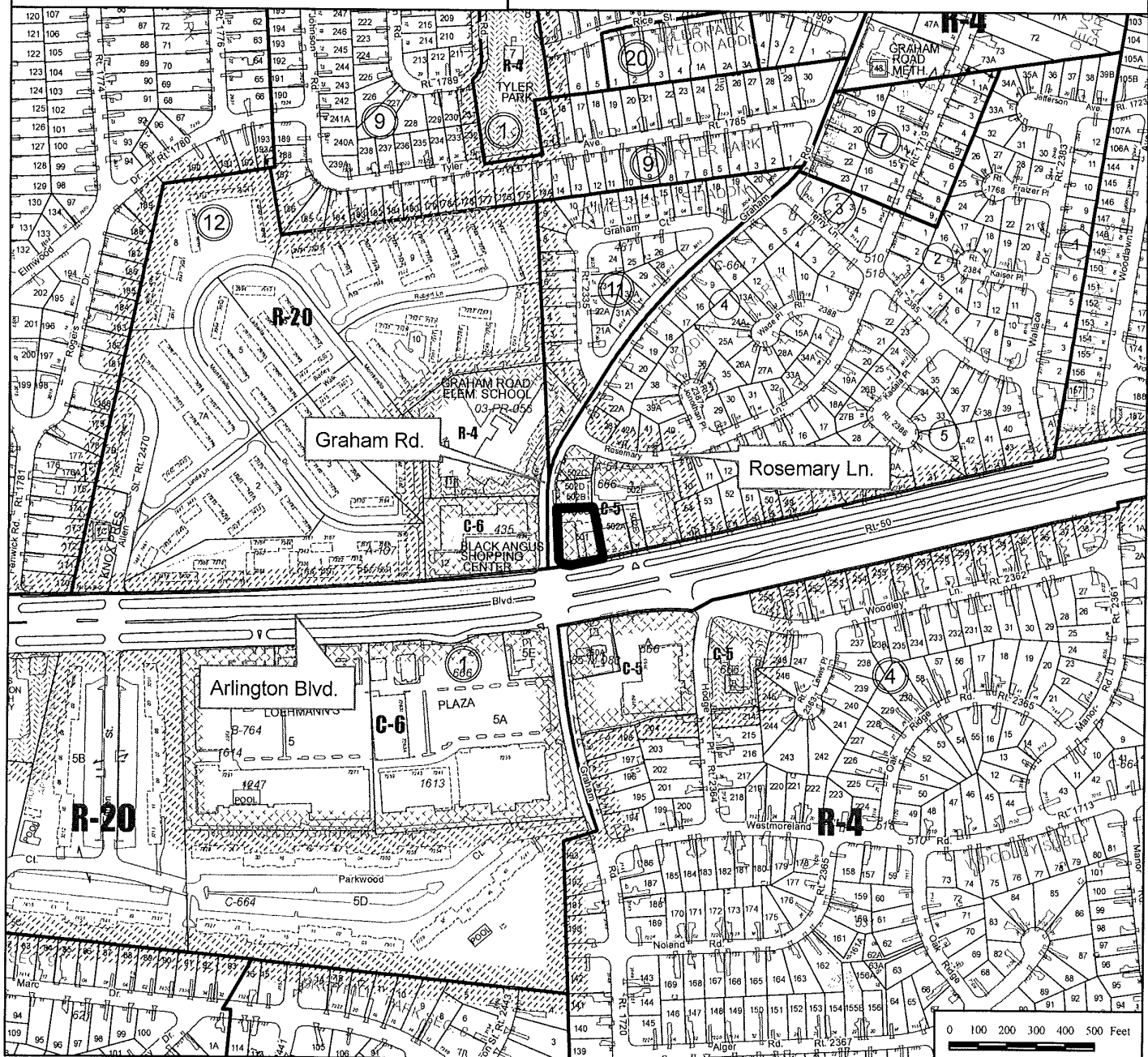


Applicant: TD BANK, NATIONAL ASSOCIATION
Accepted: 06/14/2012
Proposed: DRIVE-IN FINANCIAL INSTITUTION
Area: 27491 SF OF LAND; DISTRICT - PROVIDENCE
ZIP - 22042

Zoning Dist Sect: 04-0504
Art 9 Group and Use: 5-06
Located: 7230 ARLINGTON BOULEVARD, FALLS
CHURCH, VA 22042

Zoning: C- 5
Plan Area: 1

Map Ref Num: 050-3- /05/05/0501





County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

June 19, 2013

Frederick R. Taylor
Bean, Kinney and Korman, P.C.
2300 Wilson Boulevard, 7th Floor
Arlington, VA 22201

Re: Special Exception Application SE 2012-PR-012

Dear Mr. Taylor:

At a regular meeting of the Board of Supervisors held on June 18, 2013, the Board approved Special Exception Application SE 2012-PR-012 in the name of TD Bank, National Association. The subject property is located at 7230 Arlington Boulevard, on approximately 27,491 square feet of land, zoned C-5 in the Providence District [Tax Map 50-3 ((5)) (5) 501]. The Board's action permits a drive-in financial institution, pursuant to Sections 4-504 of the Fairfax County Zoning Ordinance, by requiring conformance with the following development conditions:

1. This Special Exception Amendment is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception Amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special exception plat approved with the application, as qualified by these development conditions.
3. This Special Exception Amendment is subject to the provision of Article 17, Site Plans as may be determined by the Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this Special Exception shall be in substantial conformance with the approved Special Exception Plat entitled "Special Exception Plat for TD" prepared by Bohler Engineering, which is dated March 22, 2012 and revised through May 22, 2013 and these conditions. Minor modifications to the approved Special Exception may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035

Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
Email: clerktothebos@fairfaxcounty.gov
<http://www.fairfaxcounty.gov/bosclerk>

4. A copy of this Special Exception and the Non-Residential Use Permit shall be posted in a conspicuous place on the property of the use and be made available to all departments of the County of Fairfax during the hours of operation of the permitted use.

OPERATIONAL:

5. Hours of operation of the bank shall not exceed 8:00 a.m. to 8:00 p.m. Monday through Friday, 8:00 a.m. to 3:00 p.m. on Saturdays, and 12:00 p.m. to 4:00 p.m. on Sundays.
6. There shall be a maximum of seven employees on-site at any one time.

ENVIRONMENTAL:

7. Prior to site plan approval, the applicant must perform a Phase I EPA assessment on the site and, if contamination is identified, must develop and begin implementation of a remediation plan to address any revealed contamination, to the satisfaction of the Virginia Department of Environmental Quality (DEQ).

ARCHITECTURAL:

8. Architectural elevations and building materials shall be in substantial conformance with those shown on the SE Plat.
9. All retaining walls shall incorporate split-face Concrete Masonry Unit (CMU) materials similar to the building façade.

LANDSCAPING:

10. Landscaping and sidewalk treatments shall be provided as generally shown on the Special Exception Plat, subject to review and approval of the Urban Forestry Management Division of the Department of Public Works and Environmental Services (DPWES).

TRANSPORTATION:

11. Prior to issuance of a Non-RUP, a 23-foot wide interparcel access easement shall be recorded, as depicted on the SE plat, to provide future access to the parcel to the east.

12. Prior to issuance of a Non-RUP, the applicant shall grant an easement to provide public access to the sidewalk along Graham Road. Such easement shall be subject to a private maintenance agreement in a form acceptable to the County Attorney.
13. Two drive-thru lanes shall be open to provide adequate vehicle stacking at all times.
14. The location and orientation of the retaining walls and sidewalk at the northwest corner of the site, from the Graham Road access north, shall be subject to FCDOT and VDOT review and approval at site plan.
15. Final layout of bicycle rack location and orientation shall be subject to FCDOT approval at site plan.

STORMWATER:

16. Stormwater management/BMP facilities shall be determined by DPWES to meet all PFM requirements prior to final site plan approval, regardless of any waiver requests.

SIGNAGE/LIGHTING:

17. All signage shall comply with the provisions of Article 12 of the Zoning Ordinance.
18. No freestanding commercial signs, other than the 20' pylon sign depicted on the SE plat, shall be permitted. Bank logos or other advertising shall not be placed on any directional signage.
19. All lighting, including streetlights, security lighting, signage lighting (during the allowed hours as listed within these conditions) and pedestrian or other incidental lighting, shall be in conformance with Part 9 of Article 14 of the Zoning Ordinance.

GREEN BUILDING:

20. A. The Applicant shall include, as part of the site plan submission and building plan submission for the building, a list of specific credits within the most current version of the U. S. Green Building Council's Leadership in Energy and Environmental Design — New Construction (LEED®-NC) rating system, or other LEED rating system determined to be applicable to the financial institution by the U. S. Green Building Council (USGBC), that the Applicant anticipates attaining. At least one principal participant of the Applicant's project team shall be a Licensed Architect, Licensed Landscape Architect, or Professional Engineer, and a LEED Accredited Professional, and such professional shall provide certification statements at both the time of site plan review and the time of building plan review confirming that the

items on the list are expected to meet at least the minimum number of credits necessary to attain LEED certification for the financial institution.

B. Prior to approval of the site plan, the applicant will post a "green building escrow," in the form of cash or a letter of credit from a financial institute acceptable to DPWES as defined in the Public Facilities Manual, in the amount of \$70,000. This escrow will be in addition to and separate from other bond requirements and will be released upon demonstration of attainment of certification, by the U.S. Green Building Council, under the most current version of the LEED®-NC rating system or other LEED rating system determined, by the U.S. Green Building Council, to be applicable to the building. The provision to the Environment and Development Review Branch of DPZ, within two years of issuance of the RUP/non-RUP for the building, of documentation from the U.S. Green Building Council that the building has attained LEED certification will be sufficient to satisfy this commitment.

C. If the applicant provides to the Environment and Development Review Branch of DPZ, within two years of issuance of the RUP/non-RUP for the building, documentation demonstrating that LEED certification for the building has not been attained but that the building has been determined by the U.S. Green Building Council to fall within three points of attainment of LEED certification, 50% of the escrow will be released to the applicant; the other 50% will be released to Fairfax County and will be posted to a fund within the County budget supporting implementation of County environmental initiatives.

D. If the applicant fails to provide, within two years of issuance of the RUP/non-RUP for the building, documentation to the Environment and Development Review Branch of DPZ demonstrating attainment of LEED certification or demonstrating that the building has fallen short of certification by three points or less, the entirety of the escrow for that building will be released to Fairfax County and will be posted to a fund within the county budget supporting implementation of county environmental initiatives.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be himself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, thirty (30) months after the date of approval unless, at a minimum, the use has been established or construction has commenced and been diligently prosecuted as evidenced by the issuance of a Non-Residential Use Permit for the use. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special exception. The request must

specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

The Board also:

- Waived the loading space requirements.
- Approved deviation from the tree preservation target in favor of the landscaping shown on SE Plat.
- Modified the major trail requirements to accept five-foot concrete sidewalks along both street frontages.

Sincerely,



Catherine A. Chianese
Clerk to the Board of Supervisors

cc: Chairman Sharon Bulova
Supervisor Linda Smyth, Providence, District
Tim Shirocky, Acting Director, Real Estate Division, Dept. of Tax Administration
Barbara C. Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning
Angela K. Rodeheaver, Section Chief, Transportation Planning Division
Donald Stephens, Transportation Planning Division
Ken Williams, Plans & Document Control, ESRD, DPWES
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division
Planning Commission
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation



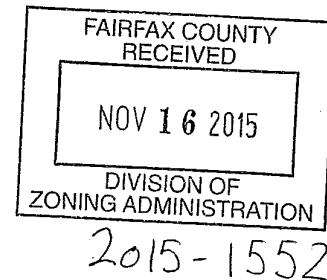
ATTACHMENT 3

2300 WILSON BOULEVARD
7TH FLOOR
ARLINGTON, VA 22201
PHONE 703.525.4000
FAX 703.525.2207

ftaylor@beankinney.com
Admitted in VA and MD

November 13, 2015

Mr. Kevin Guinaw
Zoning Evaluation Division
Fairfax County
12055 Government Center Parkway, Eighth Floor
Fairfax, VA 22035



REQUEST FOR ADDITIONAL TIME SE 2012-PR-012 - TD Bank

Dear Mr. Guinaw:

The purpose of this letter is to request additional time to commence construction for the above special exception. At this time, a sight waiver request to VDOT is still pending, and as a result, sight plan approval and building permits are still pending. Our engineers have reason to believe that the waiver will be granted.

TD Bank respectfully requests eighteen months' additional time within which to commence construction.

I enclose a letter from Winnie Williams.

Very truly yours,


Frederick R. Taylor

**KINNEY****KORMAN**

ATTORNEYS

2300 WILSON BOULEVARD
7TH FLOOR
ARLINGTON, VA 22201
PHONE 703.525.4000
FAX 703.525.2207

ftaylor@beankinney.com
Admitted in VA and MD

January 29, 2016

Mr. Steven Gardner
Zoning Evaluation Division
Fairfax County
12055 Government Center Parkway, Eighth Floor
Fairfax, VA 22035

**REQUEST FOR ADDITIONAL TIME
SE 2012-PR-012 - TD Bank**

Dear Mr. Gardner:

In our letter of November 13, 2015, we requested additional time to commence construction for the above special exception. At the time of our request for eighteen months additional time, a sight waiver request to VDOT was still pending. Since that time, the waiver has been granted and as a result, we are able to reduce our estimate of the time necessary to initiate construction..

TD Bank respectfully requests twelve months' additional time within which to commence construction.

Very truly yours,



Frederick R. Taylor

ADMINISTRATIVE – 2

Designation of Plans Examiner Status under the Expedited Land Development Review Program

ISSUE:

Board of Supervisors' action to designate individuals as Plans Examiners to participate in the Expedited Land Development Review Program.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors (the Board) take the following action:

- Designate the following individuals identified with their registration numbers, as Plans Examiners:

Jessica L. Mack, P.E.	313
Keith G. Simpson	314
Michael R. Albright	315

TIMING:

Routine.

BACKGROUND:

On August 7, 1989, the Board adopted Chapter 117 (Expedited Land Development Review) of The Code of the County of Fairfax, Virginia (the Code), establishing a Plans Examiner Program under the auspices of an Advisory Plans Examiner Board (APEB). The purpose of the Plans Examiner Program is to expedite the review of site and subdivision plans submitted by certain specially qualified applicants, i.e., Plans Examiners, to the Land Development Services, Department of Public Works and Environmental Services.

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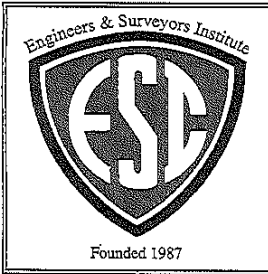
The Code requires that the Board designate an individual's status under the Expedited Land Development Review Program.

Plans Examiner Status: Candidates for status as Plans Examiners must meet the education and experience requirements contained in Chapter 117. After review of their applications and credentials, the APEB has found that the candidates listed above satisfy these requirements. This finding was documented in a letter dated January 7, 2016, from the Chairman of the APEB, James H. Scanlon, P.E., L.S., to Chairman Bulova.

FISCAL IMPACT:
None.

ENCLOSED DOCUMENTS:
Attachment I – Letter dated January 7, 2016, from the Chairman of the APEB to the Chairman of the Board of Supervisors.

STAFF:
Robert A. Stalzer, Deputy County Executive
William D. Hicks, P.E., Deputy Director, Department of Public Works and Environmental Services, Land Development Services



Engineers & Surveyors Institute

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(703) 263-2232 • Fax (703) 263-0201 • E-mail esi@esinova.org

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David S. Dwornik
Rinker Design & Associates, P.C.

Kimberley P. Fogle, AICP
Fauquier County

Gregory Prelewicz
Fairfax Water

Kayvan Jaboori, P.E.
KJ & Associates

Paul B. Johnson, P.E.
Charles P. Johnson & Associates, Inc.

Paul J. Kraucunas, P.E.
Virginia Department of
Transportation

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Paciulli, Simmons & Associates, Ltd

J. Keith Sinclair, Jr., P.E.
A. Morton Thomas & Associates, Inc.

William J. Skrabak
City of Alexandria, T&ES

Blake A. Smith, P.E.
Smith Engineering

Anita M. Tierney
Loudoun County, B&D

Susan S. Wolford, CLA, AICP
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Burgess & Niple, Inc.

EXECUTIVE DIRECTOR
Farrance C. Ryan PhD, P.E.

January 7, 2016

Hon. Sharon Bulova, Chairman
Fairfax County Board of Supervisors
12000 Government Center Parkway
Fairfax, VA 22035

Dear Chairman Bulova:

The following named individuals, were approved by the Advisory Plans Examiner Board for recommendation as Designated Plans Examiners:

Name	Reg. No.
Jessica L. Mack, PE	#313
Keith G. Simpson	#314
Michael R. Albright	#315

They have been found to meet the qualifications outlined in Chapter 117-1-2 of the Code of Fairfax County and is in accordance with the criteria adopted by the Fairfax County Board of Supervisors on February 11, 1991.

Sincerely,

James H. Scanlon, P.E., L.S.

Chairman

Fairfax County Advisory Plans Examiner Board

Received

JAN 20 2016

Land Development Services
Directors Office

ADMINISTRATIVE – 3

Authorization to Advertise a Public Hearing for a Sewer Ordinance Amendment to Revise the Sewer Service Charges, Base Charges and the Equivalent Flow Factor and to Maintain the Availability Charges and Fixture Unit Charge

ISSUE:

Board authorization is needed to advertise a public hearing for the purpose of amending the County's sewer ordinance. As shown in the proposed advertisements provided in Attachments Ia, Ib, and II, the sewer ordinance is being proposed to be amended to revise Sewer Service Charges, Base Charges and the Equivalent Flow Factor for Significant Industrial Users and other industrial or commercial users deemed by the Director, Department of Public Works and Environmental Services (DPWES) to have processes generating significant wastewater flows, and to maintain Availability Charges for both Residential and Nonresidential uses and Fixture Unit Charge for Nonresidential uses. This is consistent with the Wastewater Management Program's "Revenue Sufficiency and Rate Analysis" (the Rate Study) for the Sewer System, prepared in cooperation with its consultant, Public Resources Management Group, Inc. (PRMG). The effects of these revisions are as follows:

1. To re-affirm and establish the Sewer Service Charge for FY 2016 through FY 2020
2. To re-affirm and establish the Base Charge for FY 2016 through FY 2020
3. To re-affirm and establish the Availability Charges for FY 2016 through FY 2020
4. To re-affirm and establish the Fixture Unit Charge for FY 2016 through FY 2020
5. To reduce the equivalent unit flow rate of 320 gallons per day to 300 gallons per day

Although the sewer charges in the sewer ordinance are multi-year, all sewer charges are reviewed, adjusted as necessary, and adopted annually to ensure sewer charges are accurately priced.

RECOMMENDATION:

The County Executive recommends that the Board authorize two advertisements, one for Sewer Service Charges and the Base Charges, another for Availability Charges, Fixture Unit Charge and the Equivalent Flow Factor as proposed in Attachments Ia and Ib.

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TIMING:

Action must be taken on March 1 2016, to provide adequate notice of a public hearing for comments on the proposed sewer rate revisions. The public hearing will be held on April 05, 2016, at 3:00 p.m. Decision on the sewer rate revisions will coincide with the markup and adoption of the FY 2017 Advertised Budget Plan. FY 2017 new charges will become effective on July 1, 2016.

BACKGROUND:

In December 2015, the Wastewater Management Program and its consultants, Public Resources Management Group, completed the Rate Study. To adequately support the Program, \$194,471,344 in revenues will be needed to allow the Program to continue to meet all of the regulatory requirements, maintain competitive rates with neighboring utilities, maintain financial targets, and continue to preserve AAA sewer revenue bond rating. A 3.6 percent revenue increase will be needed in FY 2017 to meet the revenue requirements of the Program. This will result in an increase of \$20.24 in the annual cost to a typical residential customer.

The following proposed rate amendments will meet the revenue requirements by increasing both the Base Charge and Sewer Service Charge, which is the industry practice. This allows for recovering a portion of the Program's fixed costs through the Base Charge and recovering the remaining required revenues through the Sewer Service charge, based on the volume of water consumed.

The current Base Charge of \$20.15 per bill recovers 13.6 percent of the Program's fixed costs. Fixed cost recovery through Base Charge is equitably shared by all customers, as the system is available for use by all customers regardless of the amount of water consumed. It is proposed to increase the Base Charge by \$4.53 per quarter for FY 2017 for a total Base Charge of \$24.68 per quarterly bill. The proposed Base Charge will recover 16.2 percent of the fixed cost in FY 2017. Industry practice is to recover 25 to 30 percent of the total fixed costs through a Base Charge. In order to strive towards such recovery rate, a phase-in approach is being proposed through FY 2020, as shown in the following table.

To generate the remaining amount of required revenues, it is proposed to increase the Sewer Service Charge by \$0.03 from the current rate of \$6.65 to \$6.68 per 1,000 gallons of water consumed. The proposed rate increase will fund inflationary increases and the cost of rehabilitating facilities at wastewater treatment plants to maintain compliance with discharge requirements imposed by the state and the Chesapeake Bay Program.

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Year	Current and Proposed Sewer Service Charge Per 1,000 gallons water consumed	Proposed Increase in Base Charge Per Quarterly Bill	New Base Charge Per Quarterly Bill	Percent Fixed Cost Recovered
2016	\$6.65 current	-	\$20.15	13.6%
2017	\$6.68	\$ 4.53	\$24.68	16.2%
2018	\$6.75	\$ 2.94	\$27.62	18.0%
2019	\$6.85	\$ 2.76	\$30.38	19.3%
2020	\$7.05	\$ 3.04	\$33.42	20.5%

Base Charges for customers who require larger water meter than the standard $\frac{3}{4}$ " meter for residential connections, would be based on meter size because the meter size determines how much capacity the sewer system has to reserve for that customer. Despite the increase in Base Charge, customers with larger meters should not see a significant difference in their overall bill because Sewer Service Charges will increase only nominally.

The County's Sewer Service Charges, Base Charges and Availability Charges remain very competitive on a local basis. Below are average annual sewer service billings and Availability Charges per Single Family Residential Equivalent (SFRE) for Fairfax County compared to other regional jurisdictions, as of January 2016 (FY 2016). Average sewer service billings for the other regional jurisdictions have been developed by applying each jurisdiction's equivalent base charge and sewer service rate to appropriate SFRE water usage determined from Fairfax Water's average water usage for SFREs.

Comparison of Average Service Charges and Availability Charges for SFREs as of January 2016 (FY 2016)

***Based on 18,000 gallons per quarter for all jurisdictions**

Jurisdiction*	Average Annual Sewer Service Billing	Sewer Availability Fees
DCWASA	821	----
City of Alexandria	678	7,937
Arlington County	652	4,732
WSSC	607	3,500
Prince William County	570	10,300
Fairfax County	559	7,750
Loudoun Water	438	7,658

The table below outlines base charges by other regional utilities for comparison to Fairfax County's current Base Charge of \$20.15 and the proposed Base Charge of \$24.68 per quarter, as of January 2016 (FY 2016):

Quarterly Base Charges for Sewer Service for Residential Customers	
DC Water	\$ 66.69
Loudoun Water	\$ 30.60
Prince William County Service Authority	\$ 26.70
Alexandria Renew Enterprises	\$ 25.15
Washington Suburban Sanitation Commission	\$ 21.51
Fairfax County	\$ 20.15
Neighboring Utilities Average	\$ 34.13

PROPOSED BASE CHARGE AND SEWER SERVICE CHARGE SCHEDULES

BASE CHARGE SCHEDULE					
Cost (\$) per Quarterly Bill					
Proposed New and Revised Rates in Bold					
Type of Connection	Current Rate	Previously Adopted and Revised Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Residential (3/4" meter)	\$20.15	\$24.68	\$27.62	\$30.38	\$33.42
All customers based on meter size					
3/4" and smaller, or no meter	\$20.15	\$24.68	\$27.62	\$30.38	\$33.42
1"	\$50.38	\$61.70	\$69.05	\$75.95	\$83.55
1 1/2"	\$100.75	\$123.40	\$138.10	\$151.90	\$167.10
2"	\$161.20	\$197.44	\$220.96	\$243.04	\$267.36
3"	\$302.25	\$370.20	\$414.30	\$455.70	\$501.30
4"	\$503.75	\$617.00	\$690.50	\$759.50	\$835.50
6"	\$1,007.50	\$1,234.00	\$1,381.00	\$1,519.00	\$1,671.00
8"	\$1,612.00	\$1,974.40	\$2,209.60	\$2,430.40	\$2,673.60
10" and larger	\$2,317.25	\$2,838.20	\$3,176.30	\$3,493.70	\$3,843.30

SEWER SERVICE CHARGE SCHEDULE Per 1,000 gallons of water consumption Proposed New and Revised Rates in Bold					
	Current Rate	Previously Adopted and Revised Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Sewer Service Charge	\$6.65	\$6.68	\$6.75	\$6.85	\$7.05

PROPOSED AVAILABILITY CHARGE SCHEDULE

The County has completed reviewing the adequacy of the amount of the Availability Charge. Based upon the results of this review, the Availability Charge will remain the same as the FY 2015 rate. The revised, five-year rate schedule for the Availability Charge for a single-family residence is as follows:

Availability CHARGE SCHEDULE Proposed New and Revised Rates in Bold					
	Current Rate	Previously Adopted Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Availability Charge	\$7,750	\$7,750	\$7,750	\$7,750	\$7,750

Availability Charges for all nonresidential uses will be computed as the number of fixture units (including roughed-in fixture units) in accordance with Part I of the current Virginia Uniform Statewide Building Code, Section 101.2, Note 1, which incorporates by reference the 2012 International Plumbing Code (Chapter 7, Section 709), times the fixture unit rate with a minimum charge equivalent to one (1) single family detached dwelling per premises.

The revised, five-year rate schedule for the fixture unit charge for nonresidential uses is as follows:

Fixture CHARGE SCHEDULE Proposed New and Revised Rates in Bold					
	Current Rate	Previously Adopted Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Commercial and all other uses:					
Fixture unit rate	\$401	\$401	\$401	\$401	\$401

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The availability charge for Significant Industrial users and other industrial and commercial users deemed by the Director, DPWES, to have processes generating significant wastewater flows is calculated on the basis of “equivalent units,” rather than fixture units. The current one equivalent flow factor of 320 gallons per day is proposed to be reduced to 300 gallons per day within Section 67.1-10-2(a) (2) Commercial and all other uses. This change is based on a reduction by 20 gallons per day in the current level of service for the average single family residence, as derived from water consumption data.

FISCAL IMPACT:

In FY 2017, assuming a water usage for a typical residential customer of 18,000 gallons/quarter (or 72,000 gallons/year), the annual sewer bill will be approximately \$580 per year, which is an increase of \$20.24 (or \$1.69 per month) over the FY 2016 sewer bill. In FY 2017, approximately \$8.1 million in additional revenues will be generated with the proposed Sewer Service Charge and the Base Charge. Revenues from the collection of Sewer Service Charges, Base Charges, and Availability Charges are recorded in Fund 690-C69000, Sewer Revenue Fund.

ENCLOSED DOCUMENTS:

Attachment I: The Proposed Amendment to Chapter 67.1 Article 10 (Charges), Section 2 of the Code of the County of Fairfax
Attachments Ia, and Ib: Proposed Public Hearing Advertisements

STAFF:

Robert A. Stalzer, Deputy County Executive
James W. Patteson, Director, Department of Public Works and Environmental Services (DPWES)
Randy W. Bartlett, Deputy Director, Stormwater and Wastewater Management Divisions, DPWES
Shahram Mohsenin, Director, Wastewater Planning and Monitoring Division, DPWES

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Section 67.1-10-1. Generally.

Any person who is connected or who shall hereafter connect the sewerage facilities of any premises to the Facilities of the County shall pay or cause to be paid sums as hereinafter provided for the availability of, connection to, and/or use of such Facilities of the County. (39-93-67.1; 36-95-67.1; 6-98-67.1; 15-99-67.1; 16-00-67.1; 12-01-67.1; 21-02-67.1; 19-03-67.1; 15-04-67.1; 19-05-67.1; 09-06-67.1; 13-07-67.1; 29-08-67.1; 28-09-67.1; 11-10-67.1.)

Section 67.1-10-2. Availability, Connection, Lateral Spur and Service Charges.

(a) *Availability Charges.*

- (1) *Residential uses:* The following schedule of availability charges for residential uses desiring to connect to the Facilities of the County is hereby established and imposed:

		Fiscal Year (July 1-June 30)				
	Customer Class	FY 2015 2016	FY 2016 2017	FY 2017 2018	FY 2018 2019	FY 2019 2020
(A)	Single Family Detached	\$7,750	\$7,750	\$7,750	\$7,750	\$7,750
(B)	Lodging House, Hotel, Inn or Tourist Cabin	7,750	7,750	7,750	7,750	7,750
(C)	Townhouse	6,200	6,200	6,200	6,200	6,200
(D)	Apartment	6,200	6,200	6,200	6,200	6,200
(E)	Mobile Home	6,200	6,200	6,200	6,200	6,200
(F)	Any other residential dwelling unit	6,200	6,200	6,200	6,200	6,200
(G)	Hotel, Motel, or Dormitory rental unit	1,938	1,938	1,938	1,938	1,938

All availability fees paid after February 24, 1976, will be updated by or refunded without interest to the current property owners whose properties have not been connected to public sewer within five years of the initial date of payment or any subsequent payment update(s). (See Section 10-5(d), "Refunds Updates".)

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- (2) *Commercial and all other uses:* The following schedule of fixture unit rates for computing availability charges for all nonresidential uses is hereby established and imposed:

	Fiscal Year (July 1-June 30)				
	FY 2015 2016	FY 2016 2017	FY 2017 2018	FY 2018 2019	FY 2019 2020
Fixture unit rate	\$401	\$401	\$401	\$401	\$401

The availability charge will be computed as the number of fixture units (including roughed-in fixture units) in accordance with Part I of the current Virginia Uniform Statewide Building Code (as amended), Section 101.2, Note 1, which incorporates by reference the 2012 International Plumbing Code (Chapter 7, Section 709) ("VUSBC"), times the fixture unit rate with a minimum charge equivalent to one single-family detached dwelling per premises. For Significant Industrial Users with wastewater discharge permits authorizing discharge into the Integrated Sewer System and other industrial or commercial Users determined by the Director to have processes generating significant wastewater flows, the availability fee will be calculated on the basis of equivalent units. One equivalent unit is equal to ~~320~~300 gallons per day and rated equal to one single-family detached dwelling unit. Therefore, the availability charge for Significant Industrial Users and other industrial or commercial Users determined by the Director to have processes generating significant flow will be equal to the current rate for a single family detached dwelling unit times the number of equivalent units associated with the permitted flow. The number of equivalent units is equal to the permitted or projected flow in gallons per day divided by ~~320~~300 gallons per day. Fixture unit counts, for Users having fixtures discharging continuously or semi-continuously to drainage system leading to the County sanitary sewer facilities, shall be increased by two fixture units for each gallon per minute of such continuous or semi-continuous discharge. The rate of such discharge shall be deemed to be that rate certified by the manufacturer of the fixture or other equipment, or such other rates as the Director shall determine.

- (3) *Effective date:* The rate will change on July 1st of each new fiscal year. The rate applicable to each fiscal year is subject to annual review by the Board of Supervisors.

(b) *Connection Charges.*

- (1) *Residential and community uses:* Except as otherwise provided herein, [t]here is hereby established and imposed a connection charge of \$152.50 per front foot of premises (with a minimum of \$7,625 and a maximum of \$15,250 for the connection of single-family detached and attached dwellings, churches, schools, fire stations, community centers or other such similar community uses to the Facilities of the County.

- (A) The above Connection Charges are effective beginning on July 1, 2011, for all Facilities of the County constructed after July 1, 2011. During the period of July 1, 2011, through June 30, 2012, Connection Charges for connections to Facilities of the County constructed prior to July 1, 2011, will be \$6.00 per front foot of premises (with a minimum of \$300.00 and a maximum of \$600.00). Provided,

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however, the Director may extend the deadline for connection to Facilities of the County from July 1, 2012, to December 31, 2012, if the Director determines that for reasons beyond the control of the owner of the premises, at least one of the following conditions are met:

- (i) All applicable fees and charges have been paid to the County and other appropriate governmental agencies prior to June 30, 2012;
- (ii) All applicable permits have either been applied for or obtained prior to June 30, 2012;
- (iii) The owner of the premises can show diligent and active efforts to connect to the Facilities of the County prior to June 30, 2012;
- (iv) The owner has been delayed by the actions of a third party, e.g., delays in the issuance of permits or inspections by any government agency or other party; or
- (v) The delays have been caused by an Act of God.

(B) Connection Charges for connection to the Facilities of the County in the County's Extension and Improvement (E&I) Program that were under design for construction on or before April 12, 2011, and that were not completed on or before that date, will be \$6.00 per front foot of premises (with a minimum of \$300.00 and a maximum of \$600.00) provided all of the following conditions are met:

- (i) property owners in the E&I project area agree to grant all required easements within four months from the completion of the design;
- (ii) 50 percent of the property owners in the E&I project area pay the required Availability Charges within four months from the completion of the design; and
- (iii) connections to the Facilities of the County are made by no later than June 30, 2012, or within one year from the completion of the construction of the E&I project, whichever comes last, provided, however, the Director shall have [the] power to extend this deadline [by up to six months] for the hardship reasons set forth in subsections (A)(i) through (A)(v), above [, provided, however, that in lieu of the date June 30, 2012, the operative date for such extensions shall be one year from the date of completion of construction of the E&I project for which a connection is requested].

(2) *All other uses:* There is hereby established and imposed a connection charge of \$152.50 per front foot of premises (with a minimum charge of \$15,250) for the connection of all other uses to the Facilities of the County.

(3) The connection charges established and imposed above shall not apply to premises to be connected to the Facilities of the County if such Facilities of the County are constructed totally at private expense.

(4) For the purposes of Section 67.1-10-2 (b), front foot of premises will be determined by measuring the frontage of the premises located on the street address side of the premises.

(c) *Lateral spur charges:* There is hereby established and imposed a lateral spur charge of \$600.00 for the connection of all uses to a lateral spur, where such lateral spur has been installed by the County at the expense of Fairfax County.

(d) *Service charges:* There are hereby established and imposed the following sanitary sewer service charges:

Sewer Service Charges - Fiscal Year (July 1 - June 30)

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	FY 2015 <u>2016</u>	FY 2016 <u>2017</u>	FY 2017 <u>2018</u>	FY 2018 <u>2019</u>	FY 2019 <u>2020</u>
Sewer Service Charge, \$/1,000 gallons	\$6.62 <u>\$6.65</u>	\$6.65 <u>\$6.68</u>	\$6.68 <u>\$6.75</u>	\$6.75 <u>\$6.85</u>	\$6.82 <u>\$7.05</u>

(e) *Base charges:* There are hereby established and imposed the following quarterly base charges in addition to the sewer service charge:

BASE CHARGE Cost (\$) per Quarterly Bill Proposed New and Revised Rates in Bold					
Current Rate	Revised Rates				New Rate
FY 2015 <u>2016</u>	FY 2016 <u>2017</u>	FY 2017 <u>2018</u>	FY 2018 <u>2019</u>	FY 2019 <u>2020</u>	
Residential Base Charge	\$20.15 <u>\$15.86</u>	\$24.68 <u>\$20.15</u>	\$27.62 <u>\$24.68</u>	\$30.38 <u>\$27.62</u>	\$33.42 <u>\$29.83</u>
Commercial: (meter size)					
¾" and smaller, or no meter	\$20.15 <u>\$15.86</u>	\$24.68 <u>\$20.15</u>	\$27.62 <u>\$24.68</u>	\$30.38 <u>\$27.62</u>	\$33.42 <u>\$29.83</u>
1"	\$50.38 <u>\$39.65</u>	\$61.70 <u>\$50.38</u>	\$69.05 <u>\$61.70</u>	\$75.95 <u>\$69.05</u>	\$83.55 <u>\$74.58</u>
1½"	\$100.75 <u>\$79.30</u>	\$123.40 <u>\$100.75</u>	\$138.10 <u>\$123.40</u>	\$151.90 <u>\$138.10</u>	\$167.10 <u>\$149.15</u>
2"	\$161.20 <u>\$126.88</u>	\$197.44 <u>\$161.20</u>	\$220.96 <u>\$197.44</u>	\$243.04 <u>\$220.96</u>	\$267.36 <u>\$238.64</u>
3"	\$302.25 <u>\$237.90</u>	\$370.20 <u>\$302.25</u>	\$414.30 <u>\$370.20</u>	\$455.70 <u>\$414.30</u>	\$501.30 <u>\$447.45</u>

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4"	\$503.75 \$396.50	\$617.00 \$503.75	\$690.50 \$617.00	\$759.50 \$690.50	\$835.50 \$745.75
6"	\$1,007.50 \$793.00	\$1,234.00 \$1,007.50	\$1,381.00 \$1,234.00	\$1,519.00 \$1,381.00	\$1,671.00 \$1,491.50
8"	\$1,612.00 \$1,268.80	\$1,974.40 \$1,612.00	\$2,209.60 \$1,974.40	\$2,430.40 \$2,209.60	\$2,673.60 \$2,386.40
10" and larger	\$2,317.25 \$1,823.90	\$2,838.20 \$2,317.25	\$3,176.30 \$2,838.20	\$3,493.70 \$3,176.30	\$3,843.30 \$3,430.45

If requested, the Base Charge for non-residential customers who have sub-meters for irrigation and other water uses that do not enter the sewer system will be adjusted based on their sub-meter size per above table. In no case the Base Charge will be smaller than that for ¾" and smaller meter.

- (1) *Effective date:* The Service charges and Base charges will change on July 1st of each new fiscal year. For metered accounts, the change is effective with meter readings beginning October 1st of each year. For unmetered accounts, the change is effective with billings beginning October 1st of each year.
- (2) *Premises having a metered water supply:*

Category of Use	Service Charges
(A) Single-family detached and single-family attached dwellings such as townhouses, duplexes, multiplexes, semi-detached, rowhouses, garden court and patio houses with a separate water service line meter.	For each 1,000 gallons of water, based on winter-quarter consumption or current quarterly consumption, as measured by the service line meter, whichever is lower, a charge equal to the effective unit cost rate (\$/1,000 gallons).
(B) All other uses.	For each 1,000 gallons of water as measured by the water service line, a charge equal to the effective unit cost rate (\$/1,000 gallons).
(C) All users.	Base charge per billing as established in Section 67.1-10-2(e).

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- (D) The winter-quarter-maximum consumption is determined as follows:
- (i) The quarterly-daily-average consumption of water is the consumption, measured by the water service line meter for the period between meter readings divided by the number of days elapsed between meter readings.
 - (ii) The quarterly consumption is 91.5 times the quarterly-daily-average consumption of water in leap years or 91.25 times the quarterly-daily-average consumption in non-leap years.
 - (iii) The winter quarterly consumption is the quarterly consumption determined at the water service line meter reading scheduled between February 1 and April 30. The winter-quarter-consumption of each respective year shall be applicable to the four quarterly sewer billings rendered in conjunction with the regular meter reading scheduled after the next May.
 - (iv) All water delivered to the premises, as measured by the winter quarter-consumption for single-family dwellings and townhouses or the meter of all other Users, shall be deemed to have been discharged to the Facilities of the County. However, any person may procure the installation of a second water service line meter. Such person may notify the Director of such installation, in which event the Director shall make such inspection or inspections as may be necessary to ascertain that no water delivered to the premises or only the water delivered through any such additional meter may enter the Facilities of the County. If the Director determines that water delivered through an additional meter may not enter the Facilities of the County, no charge hereunder shall be based upon such volume of water delivery. If the Director determines that only the water delivered through an additional meter may enter the Facilities of the County, only the water recorded on the additional meter shall be charged. In the alternative, any person may procure the installation of a sewage meter which shall be of a type and installed in a manner approved by the Director, who shall make periodic inspection to ensure accurate operation of said meter; in such event, the charge imposed hereunder shall be based upon the volume measured by such meter. The cost of all inspections required by the foregoing provisions for elective metering, as determined by normal cost accounting methods, shall be an additional charge for sanitary sewer service to the premises on which such meter or meters are installed.
- (E) For single-family premises as in (e)(2)(A) not able to register valid meter readings for the measurement of winter-quarter-consumption the following billing method shall apply:
- (i) Premises not existing, unoccupied or occupied by a different household during the applicable winter quarter, or which due to unfavorable weather, meter failure or for any other reason of meter inaccuracy cannot register valid meter readings, shall not be considered to have a valid meter reading for the purpose of winter-quarter-consumption measurement.
 - (ii) Such premises may be billed on the basis of the average winter-quarter-consumption for similar dwelling units or the current quarterly consumption, as registered by water service line meter, or based on historical water usage. Accounts for single-family premises established by a builder for sewerage service during construction shall be considered a nonresidential use.
- (3) Premises not having metered water supply or having both well water and public metered water supply:
- (A) Single-family dwellings, as in (e)(2)(A). An amount equal to the average winter-quarter-consumption, during the applicable winter quarter, of similar dwelling units, times the effective unit cost rate (\$/1,000 gallons). In the alternative, any such single-family residential customer may apply to the County, via the water supplier providing water service to the area in which the residential customer is located, for special billing rates, based on average per capita consumption of water in similar type units.

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- (B) All other uses: The charge shall be based upon the number of fixture units and load factor in accordance with the VUSBC, Table I and Table II Fixture Units and Load Factors for All Other Premises. There shall be an additional charge equal to the effective unit cost (\$/1,000 gallons) for the volume discharged by fixtures discharging continuously or semi-continuously. Volume of continuous or semi-continuous discharge shall be deemed to be that used in determining availability charge.

TABLE I. Table of Fixture Units

Type of Fixture or Group of Fixtures	Drainage Fixture Unit Value(d.f.u.)
Commercial automatic clothes washer (2" standpipe)	3
Bathroom group consisting of water closet, lavatory and bathtub or shower stall (Residential):	
Tank type closet	6
Bathtub (with or without overhead shower)	2
Combination sink-and-tray with food disposal unit	2
Combination sink-and-tray with 1½" trap	2
Dental unit or cuspidor	1
Dental lavatory	1
Drinking fountain	½
Dishwasher, domestic	2
Floor drains with 2" waste	2
Kitchen sink, domestic, with one 1½" waste	2
Kitchen sink, domestic, with food waste grinder and/or dishwasher	2

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Lavatory with 1½" waste	1
Laundry tray (1 or 2 compartments)	2
Shower stall	2
Sinks:	
Surgeon's	3
Flushing rim (with valve)	6
Service (trap standard)	3
Service (P trap)	2
Pot, scullery, etc.	4
Urinal, pedestal, syphon jet blowout	6
Urinal, wall lip	4
Urinal stall, washout	4
Urinal trough (each 6-ft. section)	2
Wash sink (circular or multiple) each set of faucets	2
Water closet, tank-operated	4
Water closet, valve-operated	6
Fixture drain or trap size:	
1½ inches and smaller	1

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1½ inches	2
2 inches	3
2½ inches	4
3 inches	5
4 inches	6

TABLE II.
Fixture Units and Load Factors for All Other Premises
Quarterly Service Charges
Fiscal Year (July 1 - June 30)

Fixture Units	Load Factor	2015 2016	2016 2017	2017 2018	2018 2019	2019 2020
20 or less	1.00	166.25 165.50	167.00 166.25	168.75 167.00	171.25 168.75	176.25 170.50
21 to 30	1.25	207.81 206.88	208.75 207.81	210.94 208.75	214.06 210.94	220.31 213.43
31 to 40	1.45	241.06 239.98	242.15 241.06	244.69 242.15	248.31 244.69	255.56 247.23
41 to 50	1.60	266.00 264.80	267.20 266.00	270.00 267.20	274.00 270.00	282.00 272.80
51 to 60	1.75	290.94 289.63	292.25 290.94	295.31 292.25	299.69 295.31	308.44 298.38
61 to 70	1.90	315.88 314.45	317.30 315.88	320.63 317.30	325.38 320.63	334.88 323.95

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71 to 80	2.05	<u>340.81</u> 339.28	<u>342.35</u> 340.81	<u>345.94</u> 342.35	<u>351.06</u> 345.94	<u>361.31</u> 349.53
81 to 90	2.20	<u>365.75</u> 364.10	<u>367.40</u> 365.75	<u>371.25</u> 367.40	<u>376.75</u> 371.25	<u>387.75</u> 375.40
91 to 100	2.30	<u>382.38</u> 380.65	<u>384.10</u> 382.38	<u>388.13</u> 384.10	<u>393.88</u> 388.13	<u>405.38</u> 392.15
101 to 110	2.40	<u>399.00</u> 397.20	<u>400.80</u> 399.00	<u>405.00</u> 400.80	<u>411.00</u> 405.00	<u>423.00</u> 409.20
111 to 120	2.55	<u>423.94</u> 422.03	<u>425.85</u> 423.94	<u>430.31</u> 425.85	<u>436.69</u> 430.31	<u>449.44</u> 434.78
121 to 130	2.65	<u>440.56</u> 438.58	<u>442.55</u> 440.56	<u>447.19</u> 442.55	<u>453.81</u> 447.19	<u>467.06</u> 451.83
131 to 140	2.75	<u>457.19</u> 455.13	<u>459.25</u> 457.19	<u>464.06</u> 459.25	<u>470.94</u> 464.06	<u>484.69</u> 468.88
141 to 150	2.85	<u>473.81</u> 471.68	<u>475.95</u> 473.81	<u>480.94</u> 475.95	<u>488.06</u> 480.94	<u>502.31</u> 485.93
151 to 160	2.95	<u>490.44</u> 488.23	<u>492.65</u> 490.44	<u>497.81</u> 492.65	<u>505.19</u> 497.81	<u>519.94</u> 502.98
161 to 170	3.05	<u>507.06</u> 504.78	<u>509.35</u> 507.06	<u>514.69</u> 509.35	<u>522.31</u> 514.69	<u>537.56</u> 520.03
171 to 180	3.15	<u>523.69</u> 521.33	<u>526.05</u> 523.69	<u>531.56</u> 526.05	<u>539.44</u> 531.56	<u>555.19</u> 537.08
181 to 190	3.25	<u>540.31</u> 537.88	<u>542.75</u> 540.31	<u>548.44</u> 542.75	<u>556.56</u> 548.44	<u>572.81</u> 554.13

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CHAPTER 67.1. - Sanitary Sewers and Sewage Disposal.

ARTICLE 10. Charges.

191 to 200	3.35	<u>556.94</u> 554.43	<u>559.45</u> 556.94	<u>565.31</u> 559.45	<u>573.69</u> 565.31	<u>590.44</u> 571.18
201 to 210	3.45	<u>573.56</u> 570.98	<u>576.15</u> 573.56	<u>582.19</u> 576.15	<u>590.81</u> 582.19	<u>608.06</u> 588.23
211 to 220	3.55	<u>590.19</u> 587.53	<u>592.85</u> 590.19	<u>599.06</u> 592.85	<u>607.94</u> 599.06	<u>625.69</u> 605.28
221 to 230	3.65	<u>606.81</u> 604.08	<u>609.55</u> 606.81	<u>615.94</u> 609.55	<u>625.06</u> 615.94	<u>643.31</u> 622.33
231 to 240	3.75	<u>623.44</u> 620.63	<u>626.25</u> 623.44	<u>632.81</u> 626.25	<u>642.19</u> 632.81	<u>660.94</u> 639.38
241 to 250	3.85	<u>640.06</u> 637.18	<u>642.95</u> 640.06	<u>649.69</u> 642.95	<u>659.31</u> 649.69	<u>678.56</u> 656.43
251 to 260	3.90	<u>648.38</u> 645.45	<u>651.30</u> 648.38	<u>658.13</u> 651.30	<u>667.88</u> 658.13	<u>687.38</u> 664.95
261 to 270	4.00	<u>665.00</u> 662.00	<u>668.00</u> 665.00	<u>675.00</u> 668.00	<u>685.00</u> 675.00	<u>705.00</u> 682.00
271 to 280	4.05	<u>673.31</u> 670.28	<u>676.35</u> 673.31	<u>683.44</u> 676.35	<u>693.56</u> 683.44	<u>713.81</u> 690.53
281 to 290	4.10	<u>681.63</u> 678.55	<u>684.70</u> 681.63	<u>691.88</u> 684.70	<u>702.13</u> 691.88	<u>722.63</u> 699.05
291 to 300	4.15	<u>689.94</u> 686.83	<u>693.05</u> 689.94	<u>700.31</u> 693.05	<u>710.69</u> 700.31	<u>731.44</u> 707.58
301 to 310	4.20	<u>698.25</u> 695.10	<u>701.40</u> 698.25	<u>708.75</u> 701.40	<u>719.25</u> 708.75	<u>740.25</u> 716.10

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ARTICLE 10. Charges.

311 to 320	4.30	<u>714.88</u> 711.65	<u>718.10</u> 714.88	<u>725.63</u> 718.40	<u>736.38</u> 725.63	<u>757.88</u> 733.15
321 to 330	4.40	<u>731.50</u> 728.20	<u>734.80</u> 731.50	<u>742.50</u> 734.80	<u>753.50</u> 742.50	<u>775.50</u> 750.20
331 to 340	4.50	<u>748.13</u> 744.75	<u>751.50</u> 748.13	<u>759.38</u> 751.50	<u>770.63</u> 759.38	<u>793.13</u> 767.25
341 to 350	4.60	<u>764.75</u> 761.30	<u>768.20</u> 764.75	<u>776.25</u> 768.20	<u>787.75</u> 776.25	<u>810.75</u> 784.30
351 to 360	4.70	<u>781.38</u> 777.85	<u>784.90</u> 781.38	<u>793.13</u> 784.90	<u>804.88</u> 793.13	<u>828.38</u> 801.35
361 to 370	4.80	<u>798.00</u> 794.40	<u>801.60</u> 798.00	<u>810.00</u> 801.60	<u>822.00</u> 810.00	<u>846.00</u> 818.40
371 to 380	4.90	<u>814.63</u> 810.95	<u>818.30</u> 814.63	<u>826.88</u> 818.30	<u>839.13</u> 826.88	<u>863.63</u> 835.45
381 to 390	5.00	<u>831.25</u> 827.50	<u>835.00</u> 831.25	<u>843.75</u> 835.00	<u>856.25</u> 843.75	<u>881.25</u> 852.50
391 to 400	5.10	<u>847.88</u> 844.05	<u>851.70</u> 847.88	<u>860.63</u> 851.70	<u>873.38</u> 860.63	<u>898.88</u> 869.55
401 to 410	5.20	<u>864.50</u> 860.60	<u>868.40</u> 864.50	<u>877.50</u> 868.40	<u>890.50</u> 877.50	<u>916.50</u> 886.60
411 to 420	5.30	<u>881.13</u> 877.15	<u>885.10</u> 881.13	<u>894.38</u> 885.10	<u>907.63</u> 894.38	<u>934.13</u> 903.65
421 to 430	5.40	<u>897.75</u> 893.70	<u>901.80</u> 897.75	<u>911.25</u> 901.80	<u>924.75</u> 911.25	<u>951.75</u> 920.70

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ARTICLE 10. Charges.

431 to 440	5.50	<u>914.38</u> 910.25	<u>918.50</u> 914.38	<u>928.13</u> 918.50	<u>941.88</u> 928.13	<u>969.38</u> 937.75
441 to 450	5.60	<u>931.00</u> 926.80	<u>935.20</u> 931.00	<u>945.00</u> 935.20	<u>959.00</u> 945.00	<u>987.00</u> 954.80
451 to 460	5.70	<u>947.63</u> 943.35	<u>951.90</u> 947.63	<u>961.88</u> 951.90	<u>976.13</u> 961.88	<u>1,004.63</u> 971.85
461 to 470	5.80	<u>964.25</u> 959.90	<u>968.60</u> 964.25	<u>978.75</u> 968.60	<u>993.25</u> 978.75	<u>1,022.25</u> 988.90
471 to 480	5.90	<u>980.88</u> 976.45	<u>985.30</u> 980.88	<u>995.63</u> 985.30	<u>1,010.38</u> 995.63	<u>1,039.88</u> 1,005.95
481 to 490	6.00	<u>997.50</u> 993.00	<u>1,002.00</u> 997.50	<u>1,012.50</u> 1,002.00	<u>1,027.50</u> 1,012.50	<u>1,057.50</u> 1,023.00
491 to 500	6.10	<u>1,014.13</u> 1,009.55	<u>1,018.70</u> 1,014.13	<u>1,029.38</u> 1,018.70	<u>1,044.63</u> 1,029.38	<u>1,075.13</u> 1,040.05
501 to 525	6.25	<u>1,039.06</u> 1,034.38	<u>1,043.75</u> 1,039.06	<u>1,054.69</u> 1,043.75	<u>1,070.31</u> 1,054.69	<u>1,101.56</u> 1,065.63
526 to 550	6.50	<u>1,080.63</u> 1,075.75	<u>1,085.50</u> 1,080.63	<u>1,096.88</u> 1,085.50	<u>1,113.13</u> 1,096.88	<u>1,145.63</u> 1,108.25
551 to 575	6.75	<u>1,122.19</u> 1,117.13	<u>1,127.25</u> 1,122.19	<u>1,139.06</u> 1,127.25	<u>1,155.94</u> 1,139.06	<u>1,189.69</u> 1,150.88
576 to 600	7.00	<u>1,163.75</u> 1,158.50	<u>1,169.00</u> 1,163.75	<u>1,181.25</u> 1,169.00	<u>1,198.75</u> 1,181.25	<u>1,233.75</u> 1,193.50
601 to 625	7.25	<u>1,205.31</u> 1,199.88	<u>1,210.75</u> 1,205.31	<u>1,223.44</u> 1,210.75	<u>1,241.56</u> 1,223.44	<u>1,277.81</u> 1,236.13

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ARTICLE 10. Charges.

626 to 650	7.50	<u>1,246.88</u> 1,241.25	<u>1,252.50</u> 1,246.88	<u>1,265.63</u> 1,252.50	<u>1,284.38</u> 1,265.63	<u>1,321.88</u> 1,278.75
651 to 675	7.75	<u>1,288.44</u> 1,282.63	<u>1,294.25</u> 1,288.44	<u>1,307.81</u> 1,294.25	<u>1,327.19</u> 1,307.81	<u>1,365.94</u> 1,321.38
676 to 700	8.00	<u>1,330.00</u> 1,324.00	<u>1,336.00</u> 1,330.00	<u>1,350.00</u> 1,336.00	<u>1,370.00</u> 1,350.00	<u>1,410.00</u> 1,364.00
701 to 725	8.20	<u>1,363.25</u> 1,357.10	<u>1,369.40</u> 1,363.25	<u>1,383.75</u> 1,369.40	<u>1,404.25</u> 1,383.75	<u>1,445.25</u> 1,398.10
726 to 750	8.40	<u>1,396.50</u> 1,390.20	<u>1,402.80</u> 1,396.50	<u>1,417.50</u> 1,402.80	<u>1,438.50</u> 1,417.50	<u>1,480.50</u> 1,432.20
751 to 775	8.60	<u>1,429.75</u> 1,423.30	<u>1,436.20</u> 1,429.75	<u>1,451.25</u> 1,436.20	<u>1,472.75</u> 1,451.25	<u>1,515.75</u> 1,466.30
776 to 800	8.80	<u>1,463.00</u> 1,456.40	<u>1,469.60</u> 1,463.00	<u>1,485.00</u> 1,469.60	<u>1,507.00</u> 1,485.00	<u>1,551.00</u> 1,500.40
801 to 825	9.00	<u>1,496.25</u> 1,489.50	<u>1,503.00</u> 1,496.25	<u>1,518.75</u> 1,503.00	<u>1,541.25</u> 1,518.75	<u>1,586.25</u> 1,534.50
826 to 850	9.20	<u>1,529.50</u> 1,522.60	<u>1,536.40</u> 1,529.50	<u>1,552.50</u> 1,536.40	<u>1,575.50</u> 1,552.50	<u>1,621.50</u> 1,568.60
851 to 875	9.35	<u>1,554.44</u> 1,547.43	<u>1,561.45</u> 1,554.44	<u>1,577.81</u> 1,561.45	<u>1,601.19</u> 1,577.81	<u>1,647.94</u> 1,594.18
876 to 900	9.50	<u>1,579.38</u> 1,572.25	<u>1,586.50</u> 1,579.38	<u>1,603.13</u> 1,586.50	<u>1,626.88</u> 1,603.13	<u>1,674.38</u> 1,619.75
901 to 925	9.65	<u>1,604.31</u> 1,597.08	<u>1,611.55</u> 1,604.31	<u>1,628.44</u> 1,611.55	<u>1,652.56</u> 1,628.44	<u>1,700.81</u> 1,645.33

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ARTICLE 10. Charges.

926 to 950	9.80	<u>1,629.25</u> 1,621.90	<u>1,636.60</u> 1,629.25	<u>1,653.75</u> 1,636.60	<u>1,678.25</u> 1,653.75	<u>1,727.25</u> 1,670.90
951 to 975	9.95	<u>1,654.19</u> 1,646.73	<u>1,661.65</u> 1,654.19	<u>1,679.06</u> 1,661.65	<u>1,703.94</u> 1,679.06	<u>1,753.69</u> 1,696.48
976 to 1,000	10.15	<u>1,687.44</u> 1,679.83	<u>1,695.05</u> 1,687.44	<u>1,712.81</u> 1,695.05	<u>1,738.19</u> 1,712.81	<u>1,788.94</u> 1,730.58
1,001 to 1,050	10.55	<u>1,753.94</u> 1,746.03	<u>1,761.85</u> 1,753.94	<u>1,780.31</u> 1,761.85	<u>1,806.69</u> 1,780.31	<u>1,859.44</u> 1,798.78
1,051 to 1,100	10.90	<u>1,812.13</u> 1,803.95	<u>1,820.30</u> 1,812.13	<u>1,839.38</u> 1,820.30	<u>1,866.63</u> 1,839.38	<u>1,921.13</u> 1,858.45
1,101 to 1,150	11.30	<u>1,878.63</u> 1,870.15	<u>1,887.10</u> 1,878.63	<u>1,906.88</u> 1,887.10	<u>1,935.13</u> 1,906.88	<u>1,991.63</u> 1,926.65
1,151 to 1,200	11.70	<u>1,945.13</u> 1,936.35	<u>1,953.90</u> 1,945.13	<u>1,974.38</u> 1,953.90	<u>2,003.63</u> 1,974.38	<u>2,062.13</u> 1,994.85
1,201 to 1,250	12.00	<u>1,995.00</u> 1,986.00	<u>2,004.00</u> 1,995.00	<u>2,025.00</u> 2,004.00	<u>2,055.00</u> 2,025.00	<u>2,115.00</u> 2,046.00
1,251 to 1,300	12.35	<u>2,053.19</u> 2,043.93	<u>2,062.45</u> 2,053.19	<u>2,084.06</u> 2,062.45	<u>2,114.94</u> 2,084.06	<u>2,176.69</u> 2,105.68
1,301 to 1,350	12.70	<u>2,111.38</u> 2,101.85	<u>2,120.90</u> 2,111.38	<u>2,143.13</u> 2,120.90	<u>2,174.88</u> 2,143.13	<u>2,238.38</u> 2,165.35
1,351 to 1,400	13.00	<u>2,161.25</u> 2,151.50	<u>2,171.00</u> 2,161.25	<u>2,193.75</u> 2,171.00	<u>2,226.25</u> 2,193.75	<u>2,291.25</u> 2,216.50
1,401 to 1,450	13.25	<u>2,202.81</u> 2,192.88	<u>2,212.75</u> 2,202.81	<u>2,235.94</u> 2,212.75	<u>2,269.06</u> 2,235.94	<u>2,335.31</u> 2,259.13

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ARTICLE 10. Charges.

1,451 to 1,500	13.50	<u>2,244.38</u> 2,234.25	<u>2,254.50</u> 2,244.38	<u>2,278.13</u> 2,254.50	<u>2,311.88</u> 2,278.13	<u>2,379.38</u> 2,301.75
1,501 to 1,600	14.05	<u>2,335.81</u> 2,325.28	<u>2,346.35</u> 2,335.81	<u>2,370.94</u> 2,346.35	<u>2,406.06</u> 2,370.94	<u>2,476.31</u> 2,395.53
1,601 to 1,700	14.60	<u>2,427.25</u> 2,416.30	<u>2,438.20</u> 2,427.25	<u>2,463.75</u> 2,438.20	<u>2,500.25</u> 2,463.75	<u>2,573.25</u> 2,489.30
1,701 to 1,800	15.15	<u>2,518.69</u> 2,507.33	<u>2,530.05</u> 2,518.69	<u>2,556.56</u> 2,530.05	<u>2,594.44</u> 2,556.56	<u>2,670.19</u> 2,583.08
1,801 to 1,900	15.70	<u>2,610.13</u> 2,598.35	<u>2,621.90</u> 2,610.13	<u>2,649.38</u> 2,621.90	<u>2,688.63</u> 2,649.38	<u>2,767.13</u> 2,676.85
1,901 to 2,000	16.25	<u>2,701.56</u> 2,689.38	<u>2,713.75</u> 2,701.56	<u>2,742.19</u> 2,713.75	<u>2,782.81</u> 2,742.19	<u>2,864.06</u> 2,770.63
2,001 to 2,100	16.80	<u>2,793.00</u> 2,780.40	<u>2,805.60</u> 2,793.00	<u>2,835.00</u> 2,805.60	<u>2,877.00</u> 2,835.00	<u>2,961.00</u> 2,864.40
2,101 to 2,200	17.35	<u>2,884.44</u> 2,871.43	<u>2,897.45</u> 2,884.44	<u>2,927.81</u> 2,897.45	<u>2,971.19</u> 2,927.81	<u>3,057.94</u> 2,958.18
2,201 to 2,300	17.90	<u>2,975.88</u> 2,962.45	<u>2,989.30</u> 2,975.88	<u>3,020.63</u> 2,989.30	<u>3,065.38</u> 3,020.63	<u>3,154.88</u> 3,051.95
2,301 to 2,400	18.45	<u>3,067.31</u> 3,053.48	<u>3,081.15</u> 3,067.31	<u>3,113.44</u> 3,081.15	<u>3,159.56</u> 3,113.44	<u>3,251.81</u> 3,145.73
2,401 to 2,500	19.00	<u>3,158.75</u> 3,144.50	<u>3,173.00</u> 3,158.75	<u>3,206.25</u> 3,173.00	<u>3,253.75</u> 3,206.25	<u>3,348.75</u> 3,239.50
2,501 to 2,600	19.55	<u>3,250.19</u> 3,235.53	<u>3,264.85</u> 3,250.19	<u>3,299.06</u> 3,264.85	<u>3,347.94</u> 3,299.06	<u>3,445.69</u> 3,333.28

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ARTICLE 10. Charges.

2,601 to 2,700	20.10	<u>3,341.63</u> 3,326.55	<u>3,356.70</u> 3,341.63	<u>3,391.88</u> 3,356.70	<u>3,442.13</u> 3,391.88	<u>3,542.63</u> 3,427.05
2,701 to 2,800	20.65	<u>3,433.06</u> 3,417.58	<u>3,448.55</u> 3,433.06	<u>3,484.69</u> 3,448.55	<u>3,536.31</u> 3,484.69	<u>3,639.56</u> 3,520.83
2,801 to 2,900	21.20	<u>3,524.50</u> 3,508.60	<u>3,540.40</u> 3,524.50	<u>3,577.50</u> 3,540.40	<u>3,630.50</u> 3,577.50	<u>3,736.50</u> 3,614.60
2,901 to 3,000	21.75	<u>3,615.94</u> 3,599.63	<u>3,632.25</u> 3,615.94	<u>3,670.31</u> 3,632.25	<u>3,724.69</u> 3,670.31	<u>3,833.44</u> 3,708.38
3,001 to 4,000	26.00	<u>4,322.50</u> 4,303.00	<u>4,342.00</u> 4,322.50	<u>4,387.50</u> 4,342.00	<u>4,452.50</u> 4,387.50	<u>4,582.50</u> 4,433.00
4,001 to 5,000	29.50	<u>4,904.38</u> 4,882.25	<u>4,926.50</u> 4,904.38	<u>4,978.13</u> 4,926.50	<u>5,051.88</u> 4,978.13	<u>5,199.38</u> 5,029.75
5,001 to 6,000	33.00	<u>5,486.25</u> 5,461.50	<u>5,511.00</u> 5,486.25	<u>5,568.75</u> 5,511.00	<u>5,651.25</u> 5,568.75	<u>5,816.25</u> 5,626.50
6,001 to 7,000	36.40	<u>6,051.50</u> 6,024.20	<u>6,078.80</u> 6,051.50	<u>6,142.50</u> 6,078.80	<u>6,233.50</u> 6,142.50	<u>6,415.50</u> 6,206.20
7,001 to 8,000	39.60	<u>6,583.50</u> 6,553.80	<u>6,613.20</u> 6,583.50	<u>6,682.50</u> 6,613.20	<u>6,781.50</u> 6,682.50	<u>6,979.50</u> 6,751.80
8,001 to 9,000	42.75	<u>7,107.19</u> 7,075.13	<u>7,139.25</u> 7,107.19	<u>7,214.06</u> 7,139.25	<u>7,320.94</u> 7,214.06	<u>7,534.69</u> 7,288.88
9,001 to 10,000	46.00	<u>7,647.50</u> 7,613.00	<u>7,682.00</u> 7,647.50	<u>7,762.50</u> 7,682.00	<u>7,877.50</u> 7,762.50	<u>8,107.50</u> 7,843.00
10,001 to 11,000	48.85	<u>8,121.31</u> 8,084.68	<u>8,157.95</u> 8,121.31	<u>8,243.44</u> 8,157.95	<u>8,365.56</u> 8,243.44	<u>8,609.81</u> 8,328.93

ATTACHMENT I

- Fairfax County Code
CHAPTER 67.1. - Sanitary Sewers and Sewage Disposal.

ARTICLE 10. Charges.

11,001 to 12,000	51.60	<u>8,578.50</u> 8,539.80	<u>8,617.20</u> 8,578.50	<u>8,707.50</u> 8,617.20	<u>8,836.50</u> 8,707.50	<u>9,094.50</u> 8,797.80
12,001 to 13,000	54.60	<u>9,077.25</u> 9,036.30	<u>9,118.20</u> 9,077.25	<u>9,213.75</u> 9,118.20	<u>9,350.25</u> 9,213.75	<u>9,623.25</u> 9,309.30
13,001 to 14,000	57.40	<u>9,542.75</u> 9,499.70	<u>9,585.80</u> 9,542.75	<u>9,686.25</u> 9,585.80	<u>9,829.75</u> 9,686.25	<u>10,116.75</u> 9,786.70
14,001 to 15,000	60.00	<u>9,975.00</u> 9,930.00	<u>10,020.00</u> 9,975.00	<u>10,125.00</u> 10,020.00	<u>10,275.00</u> 10,125.00	<u>10,575.00</u> 10,230.00

NOTES:

- (1) Baseline water use for 20 fixture units is 25 TG/Qtr.
- (2) Base charge is not included in rates above.

**FAIRFAX COUNTY NOTICE OF PROPOSED
SEWER SERVICE CHARGE & BASE CHARGE - RATE REVISIONS**

NOTICE is hereby given that the Fairfax County Board of Supervisors will hold a **PUBLIC HEARING** on:

**Tuesday
April 5, 2016
commencing at 3 p.m.**

in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on the matter of an amendment to Chapter 67.1 of the Fairfax County Code (Sanitary Sewers and Sewage Disposal), Article 10 (Charges), Section 2. Pursuant to the authority of the Virginia Code, Title 15.2., Chapter 21 (including, without limitation, Sections 15.2 - 2111, 2119, and 2122), the Board of Supervisors of Fairfax County, Virginia, proposes to amend Section 67.1-10-2 of the Fairfax County Code to change all references to the unit cost of sewer service and the base charge as follows:

SEWER SERVICE CHARGE Cost (\$) per 1,000 gallons of water used Proposed New and Revised Rates in Bold					
	Current Rate	Previously Approved and Revised Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Sewer Service Charge	\$6.65	\$6.68	\$6.75	\$6.85	\$7.05

BASE CHARGE FOR CUSTOMERS Cost (\$) per Quarterly Bill Proposed New and Revised Rates in Bold					
Type of Connection	Current Rate	Previously Approved and Revised Rates			New Rate
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Residential (3/4" meter)	\$20.15	\$24.68	\$27.62	\$30.38	\$33.42
All customers based on meter size					
3/4" and smaller, or no meter	\$20.15	\$24.68	\$27.62	\$30.38	\$33.42
1"	\$50.38	\$61.70	\$69.05	\$75.95	\$83.55
1 1/2"	\$100.75	\$123.40	\$138.10	\$151.90	\$167.10
2"	\$161.20	\$197.44	\$220.96	\$243.04	\$267.36
3"	\$302.25	\$370.20	\$414.30	\$455.70	\$501.30
4"	\$503.75	\$617.00	\$690.50	\$759.50	\$835.50
6"	\$1,007.50	\$1,234.00	\$1,381.00	\$1,519.00	\$1,671.00
8"	\$1,612.00	\$1,974.40	\$2,209.60	\$2,430.40	\$2,673.60
10" and larger	\$2,317.25	\$2,838.20	\$3,176.30	\$3,493.70	\$3,843.30

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at 703-324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as information concerning the documentation for the proposed fee, levy, or increase, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional and Community Public Libraries.

Fairfax County is committed to nondiscrimination on the basis of disability in all county programs, services and activities and supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Open captioning will be provided in the Board Auditorium. For sign language interpreters or other accommodations, please call the Clerk's Office, 703 324 3151, TTY: 711 (Virginia Relay Center), as soon as possible but no later than 48 hours before the public hearing. Assistive listening devices are available at the meeting.

GIVEN under my hand this 1st day of March 2016.

Patti Hicks
Chief Deputy Clerk to the Board of Supervisors

Ad Run Dates: March 4 and 11, 2016

**FAIRFAX COUNTY NOTICE OF PROPOSED
SEWER AVAILABILITY CHARGES, EQUIVALENT UNIT FLOW RATE, & FIXTURE UNIT RATE - RATE REVISIONS**

NOTICE is hereby given that the Fairfax County Board of Supervisors will hold a **PUBLIC HEARING** on:

**Tuesday
April 5, 2016
commencing at 3 p.m.**

in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on the matter of an amendment to Chapter 67.1 of the Fairfax County Code (Sanitary Sewers and Sewage Disposal), Article 10 (Charges), Section 2. Pursuant to the authority of the Virginia Code, Title 15.2., Chapter 21 (including, without limitation, Sections 15.2 - 2111, 2119, and 2122), the Board of Supervisors of Fairfax County, Virginia, proposes to amend Section 67.1-10-2 of the Fairfax County Code to revise the availability charge schedule for residential, commercial and all other users desiring to connect to the County sanitary sewer facilities, and to revise the equivalent flow factor and the fixture unit rate as follows:

AVAILABILITY CHARGES					
Cost (\$) per Unit					
Proposed New and Revised Rates in Bold					
	Current Rate FY 2016	FY 2017	FY 2018	FY2019	\~ New ~/ FY2020
Residential uses:					
(a) Single Family Detached	\$7,750	\$7,750	\$7,750	\$7,750	\$7,750
(b) Lodging House, Hotel, Inn, or Tourist Cabin	7,750	7,750	7,750	7,750	7,750
(c) Townhouse	6,200	6,200	6,200	6,200	6,200
(d) Apartment	6,200	6,200	6,200	6,200	6,200
(e) Mobile Home	6,200	6,200	6,200	6,200	6,200
(f) Any other residential dwelling unit	6,200	6,200	6,200	6,200	6,200
(g) Hotel, Motel, or Dormitory rental unit	1,938	1,938	1,938	1,938	1,938

All availability fees paid after February 24, 1976 will be updated by or refunded without interest to current property owners whose properties have not been connected to public sewer within five (5) years of the initial date of payment or any subsequent payment update(s).

The availability charge for all nonresidential uses will be computed as the number of fixture units in accordance with the current Virginia Uniform Statewide Building Code (which incorporates by reference the 2012 International Plumbing Code, Chapter 7, Section 709) times the fixture unit rate with a minimum charge equivalent to one (1) single family detached dwelling per premises. The revised, five-year rate schedule for the fixture unit charge for nonresidential uses is as follows:

	Current Rate FY 2016	FY 2017	FY 2018	FY2019	\~ New ~/ FY2020
Commercial and all other uses:					
Fixture unit rate	\$401	\$ 401	\$ 401	\$401	\$ 401

Section 67.1-10-2 (2) Commercial and all other uses - The current one equivalent unit flow rate of 320 gallons per day is proposed to be reduced to **300** gallons per day. The equivalent unit flow rate is used to calculate the availability charge for industrial and commercial users that have processes generating significant wastewater flows.

Effective date: The rates will change on July 1st of each new fiscal year.

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at 703-324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as information concerning the documentation for the proposed fee, levy, or increase, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional and Community Public Libraries.

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GIVEN under my hand this 1st day of March 2016.

Patti Hicks
Chief Deputy Clerk to the Board of Supervisors

Ad Run Dates: March 4 and 11, 2016

Board Agenda Item
March 1, 2016

ADMINISTRATIVE - 4

Resolution for Endorsement of Bellview Road to Be Considered for Cut-Through Measures as Part of the Residential Traffic Administration Program (Dranesville District)

ISSUE:

Board endorsement of the following street to be considered for cut-through measures as part of the Residential Traffic Administration Program (RTAP):

- Bellview Road (between Towlston Road and Georgetown Pike)

RECOMMENDATION:

The County Executive recommends that the Board endorse a resolution (see Attachment I) for the selection of the above-referenced street into the RTAP for Cut-Through traffic.

TIMING:

Board action is requested on March 1, 2016.

BACKGROUND:

As part of the RTAP, roads are reviewed for the cut-through traffic program when requested by a Board member on behalf of a homeowners' or civic association. Cut-through mitigation normally employs the use of access restrictions (turn prohibitions, etc.) and/or physical devices such as speed humps, speed tables, raised pedestrian crosswalks, chokers, median islands, or traffic circles to reduce the volume of traffic on a residential street. Multi-way stops may also be employed for regulatory control of traffic. Candidate streets considered for inclusion into the RTAP for cut-through must meet certain eligibility requirements, as follows:

- The street is classified as a local residential or collector roadway
- The roadway is used by at least 150 cut-through vehicles in one hour and in one direction
- At least 40% of the total traffic is cut-through
- A viable alternate route is identified

An engineering review completed by staff (see Attachments II & III) has documented the attainment of all preliminary qualifying criteria for Bellview Road.

Board Agenda Item
March 1, 2016

FISCAL IMPACT:
None

ENCLOSED DOCUMENTS:

Attachment I: Proposed Resolution
Attachment II: Documentation of Cut-Through Traffic Study Requirements
Attachment III: Primary Use Area and Viable Alternate Route Map

STAFF:

Robert A. Stalzer, Deputy County Executive
Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)
Eric Teitelman, Chief, Capital Projects and Traffic Engineering Division, FCDOT
Neil Freschman, Chief, Traffic Engineering Section, FCDOT
Steven K. Knudsen, Transportation Planner, Traffic Engineering Section, FCDOT

RESOLUTION

FAIRFAX COUNTY DEPARTMENT OF TRANSPORTATION
RESIDENTIAL TRAFFIC ADMINISTRATION PROGRAM (RTAP)
CUT-THROUGH MEASURES
BELLVIEW ROAD
DRANESVILLE DISTRICT

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium of the Government Center in Fairfax, Virginia, on Tuesday, March 1, 2016, at which a quorum was present and voting, the following resolution was adopted:

WHEREAS, the residents in the vicinity of Bellview Road have petitioned the Dranesville District Supervisors Office of Fairfax County to consider remedial measures to reduce the volume of cut-through traffic on Bellview Road, between Towlston Road and Georgetown Pike; and

WHEREAS, an engineering study by Fairfax County Department of Transportation for Bellview Road indicates that all basic cut-through criteria are met pertaining to functional classification of the roadway, identification of their primary use area, identification of actual cut-through volume, and proof of community support; and

NOW THEREFORE BE IT RESOLVED, that the Virginia Department of Transportation is hereby requested to review and address the feasibility of implementing cut-through measures on Bellview Road as part of FCDOT's Residential Traffic Administration Program.

ADOPTED this 1st day of March, 2016.

A Copy Teste:

Catherine A. Chianese
Clerk to the Board of Supervisors

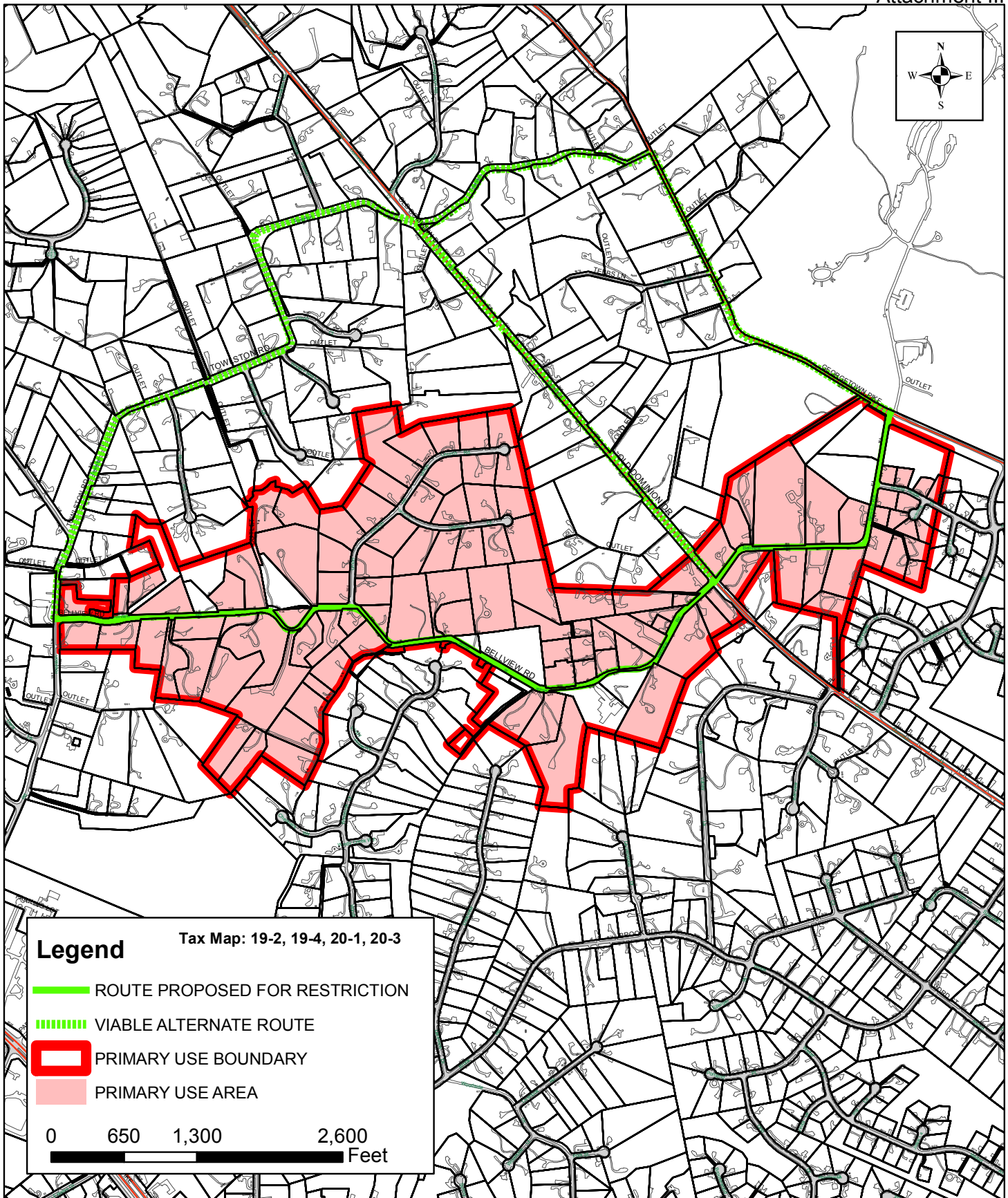
Cut Through Traffic Analysis

Street Bellview Road
Route 683
District Dranesville
Fairfax County
Tax Map 19-2, 19-4, 20-1, 20-3
Functional Classification Local
Comp Plan Residential
Primary Use Area Bellview Road

of dwelling units in study area 106

	Count Data		Internally Generated (ITE Rates -- Single Family Detached)					Cut-Through Trips	
	Volume	Dir. Split	Rate	Dir. Split	Distributed Rate	Dwelling Units	Trips	Volume	% of Total
12/17/15, 7-8 AM									
Entering									
Towlston Road - Eastbound	50	28%	0.77	26%	0.06	106	6	44	88%
Old Tolson Mill Road - Northbound	8	4%	0.77	26%	0.01	106	1	7	88%
Old Dominion Drive - Westbound #1	37								
Old Dominion Drive - Eastbound #2	55	30%	0.77	26%	0.06	106	6	49	88%
Riding Ridge Place - Northbound	2								
Georgetown Pike - Southbound	29								
Total	181							100	
Exiting									
Towlston Road - Westbound	176	37%	0.77	74%	0.21	106	22	154	87%
Old Tolson Mill Road - Southbound	7	1%	0.77	74%	0.01	106	1	6	87%
Old Dominion Drive - Eastbound #1	195	41%	0.77	74%	0.23	106	25	170	87%
Old Dominion Drive - Westbound #2	29								
Riding Ridge Place - Southbound	12								
Georgetown Pike - Northbound	56								
Total	475							330	
12/16/15, 4-5 PM									
Entering									
Towlston Road - Eastbound	212	34%	1.02	64%	0.22	106	24	188	89%
Old Tolson Mill Road - Northbound	10	2%	1.02	64%	0.01	106	1	9	89%
Old Dominion Drive - Westbound #1	219	35%	1.02	64%	0.23	106	24	195	89%
Old Dominion Drive - Eastbound #2	82								
Riding Ridge Place - Northbound	3								
Georgetown Pike - Southbound	94								
Total	620							392	
Exiting									
Towlston Road - Westbound	122	28%	1.02	36%	0.10	106	11	111	91%
Old Tolson Mill Road - Southbound	10	2%	1.02	36%	0.01	106	1	9	91%
Old Dominion Drive - Eastbound #1	131	30%	1.02	36%	0.11	106	12	119	91%
Old Dominion Drive - Westbound #2	98								
Riding Ridge Place - Southbound	1								
Georgetown Pike - Northbound	73								
Total	435							239	

Note: Numbers may not total due to rounding



Fairfax County Department of Transportation
Residential Traffic Administration Program (RTAP)
CUT-THROUGH STUDY BELLVIEW ROAD
PRIMARY USE & VIAIBLE ALTERNATE ROUTE MAP
Dranesville District



January, 2016

A Fairfax County, Va., Publication



Board Agenda Item
March 1, 2016

ADMINISTRATIVE - 5

Authorization to Advertise Publication of the FY 2017 Budget and Required Tax Rates, the FY 2017 Effective Tax Rate Increase, and the Advertised Capital Improvement Program for Fiscal Years 2017-2021 (With Future Fiscal Years to 2026)

ISSUE:

Board authorization to advertise the FY 2017 County budget, Capital Improvement Program, and the tax rates that are proposed to support the FY 2017 budget. Advertising these rates will not prevent the Board from lowering any advertised tax rate, but higher tax rates could not be imposed without advertising such rates.

RECOMMENDATION:

The County Executive recommends that the Board authorize advertisement of a brief synopsis of the FY 2017 Budget and a real estate tax rate for FY 2017 of \$1.13 per \$100 of assessed value. The FY 2017 Advertised Budget Plan is essentially balanced based on a Real Estate Tax rate of \$1.12 per \$100 of assessed value, which is an increase of \$0.03 over the current rate for FY 2016. However, advertising a real estate tax rate of \$1.13 per \$100 of assessed value gives the Board of Supervisors flexibility during their deliberations on the FY 2017 budget. Advertising an increase in the rate does not prevent the Board from lowering any advertised tax rate, but a higher tax rate cannot be imposed without advertising the higher rate.

It should also be noted that the effective tax rate in FY 2017, based on the assessed value of existing property, has increased more than one percent. As required by Virginia Code Section 58.1-3321, a separate advertisement is included. The total increase in assessed value of existing properties is expected to be 1.94 percent. In FY 2017, the assessed value of residential real property is expected to increase by 1.64 percent and non-residential property is expected to increase by 2.87 percent. As the Board will recall, a separate advertisement for the effective tax rate increase was also required in FY 2016.

In addition, the County Executive recommends that the Board authorize advertisement of a public hearing on the FY 2017 – FY 2021 Advertised Capital Improvement Program (With Future Fiscal Years to 2026).

Please note that the draft tax resolution to be advertised includes the following recommendations regarding rates for FY 2017.

Board Agenda Item
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The following rates are recommended to increase:

- I-95 Ash Disposal Fee from \$24.50 per ton to \$26.50 per ton.
- Stormwater Service District Levy from \$0.0250 per \$100 assessed value to \$0.0275 per \$100 assessed value.
- Tysons Service District from \$0.05 per \$100 assessed value to \$0.06 per \$100 assessed value.

The following rates are not recommended to change:

- Reston Community Center at \$0.047 per \$100 assessed value.
- McLean Community Center at \$0.023 per \$100 assessed value.
- Burgundy Village Community Center at \$0.02 per \$100 assessed value.
- Commercial and Industrial Tax for Transportation at \$0.125 per \$100 assessed value.
- Special service district for pest infestations at \$0.0010 per \$100 assessed value.
- Rail to Dulles Phase I Transportation Improvement District Levy at \$0.19 per \$100 assessed value.
- Rail to Dulles Phase II Transportation Improvement District Levy at \$0.20 per \$100 assessed value.
- Route 28 Taxing District Levy at \$0.18 per \$100 assessed value.
- Leaf Collection Districts at \$0.015 per \$100 assessed value.
- Refuse Collection Services assessment at \$345 per household unit.
- Energy Resource Recovery Facility fee at \$29 per ton.
- EMS Transport Fee: (1) a service fee of \$500 for Basic Life Support transport (BLS), (2) \$650 for Advanced Life Support, level 1 transport (ALS1), (3) \$800 for Advanced Life Support, level 2 transport (ALS2), and (4) \$12.00 per mile for ground transport mileage.

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Also included in the brief synopsis of the FY 2017 budget advertisement is information as it relates to the Personal Property Tax Relief Act (PPTRA) and the percentage of state "Car Tax" subsidy on qualifying personal property tax levy. On November 21, 2005, as part of Action Item 3, the Board of Supervisors adopted a resolution to implement the state "Car Tax" changes found in the Executive Amendments to the 2004-2006 Biennial Budget, specifically state Budget Item 503(E) of the Central Appropriations Act, in accordance with the requirements set forth in Virginia Code Sections 58.1-3524(C)(2) and 58.1-3912(E), as amended by Chapter 1 of the Acts of Assembly (2004 Special Session 1) and as set forth in Item 503(E)(Personal Property Tax Relief Program) of Chapter 951 of the 2005 Acts of Assembly.

Beginning in tax year 2006, the state "Car Tax" subsidy on qualifying vehicles was "capped" to a statewide total of \$950 million. Based on the final report from the state Auditor of Public Accounts, dated February 2006, Fairfax County's share of this \$950 million was fixed at 22.2436 percent, or \$211,313,944.16. The annual subsidy is frozen at this amount and is factored into the FY 2017 Advertised Budget Plan.

Consistent with the November 21, 2005 Board resolution, the state "Car Tax" funding is estimated to provide a 100 percent subsidy of the levy for tax year 2016 for qualifying vehicles valued at \$1,000 or less. Furthermore, the state "Car Tax" funding is estimated to provide a 62 percent subsidy of the tax year 2016 levy for all other qualifying vehicles on the value up to \$20,000.

A separate public hearing on the effective tax rate will be held on Tuesday, April 5, 2016 as required by Virginia Code Section 58.1-3321. In addition, public hearings on the FY 2017 budget, the advertised capital improvement plan (CIP) and proposed tax rates for tax year 2016 will be held on April 5-7, 2016.

Please note that a separate item recommending Board authorization to advertise public hearings for sewer rate revision notices is included in the March 1, 2016, Board package. The sewer rate revision notices authorize the increase in the Base Charge from \$20.15 per quarter, totaling \$80.60 per year, to \$24.68 per quarter, totaling \$98.72 per year. The Sewer Service Charge will increase from \$6.65 per 1,000 gallons of water consumption to \$6.68 per 1,000 gallons of water consumption. The Sewer Availability Fee will remain at the current rate of \$7,750 per new home being constructed. A separate public hearing on sewer rate revisions will be held on Tuesday, April 5, 2016.

TIMING:

Action must be taken on March 1, 2016 in order to provide adequate time to include the effective tax rate advertisement in the newspaper no later than March 4, 2016 to meet advertising legal requirements and ensure as broad a circulation as possible.

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BACKGROUND:

Virginia Code Section 15.2-2506 specifies the time frame within which the advertisements must be published. That section requires the publication of a brief synopsis of the budget at least seven days prior to the date set for public hearing.

Virginia Code Section 58.1-3321 also specifies advertisement requirements for an increase in the real estate tax levy for existing property based on an equalization increase greater than one percent. The assessed value of existing real estate is projected to increase 1.94 percent due to equalization, which exceeds the one-percent threshold for that statute. That section requires the publication of a notice in the paper at least thirty days prior to the date set for the public hearing and a separate public hearing is required to consider the effective tax increase.

Therefore, this item requests Board authorization to advertise the following items in accordance with the notification requirements listed above.

- A brief synopsis of the FY 2017 Budget, including information as it relates to the impact of the Personal Property Tax Relief Act (PPTRA) on the percentage of state “Car Tax” subsidy on qualifying personal property tax levy
- Proposed Tax Rates for tax year 2016
- The effective tax rate notice required by Virginia Code Section 58.1-3321
- Notice of public hearings on the Advertised Capital Improvement Program for Fiscal Years 2017 - 2021 (With Future Fiscal Years to 2026)

In order to meet these legal requirements and hold to the scheduled public hearing dates, the advertisements must be approved no later than March 1, 2016. This will permit the County to adhere to the following budget schedule:

- Public Hearing on the FY 2017 Effective Tax Rate – April 5, 2016. Please note the Public Hearing on the Effective Tax Rate is separate from the Public Hearings on the Budget. However, citizens may speak on the Effective Tax Rate during the Public Hearings on the FY 2017 Budget.
- Public Hearings on the FY 2017 Budget, the Advertised Capital Improvement Program for Fiscal Years 2017-2021 (With Future Fiscal Years to 2026) and proposed FY 2017 Tax Rates – April 5-7, 2016.
- Public Hearings on the *FY 2016 Third Quarter Review* – April 5-7, 2016.

Board Agenda Item
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- FY 2017 Budget Mark-up and Board Adoption of the *FY 2016 Third Quarter Review* – April 19, 2016.
- Board Adoption of Fiscal Plan, Tax Levies, and Appropriation Resolution – April 26, 2016.
- School transfer set (required by May 1 or 30 days after the State approves aid to schools).

In addition, it should be noted that during FY 2017 the allowable asset limits and income limits associated with the Real Estate Tax Relief Program for the Elderly and Disabled are maintained at the FY 2016 level. In FY 2017, the income limits of the Tax Relief program provide 100 percent exemption for elderly and disabled taxpayers with incomes up to \$52,000; 50 percent exemption for eligible applicants with income between \$52,001 and \$62,000; and 25 percent exemption if income is between \$62,001 and \$72,000. The allowable asset limit in FY 2017 is \$340,000 for all ranges of tax relief and that limit does not include the value of the residence of the applicant and one acre of land on which the residence is located. In addition, veterans who have a 100 percent and total disability related to military service, or their surviving spouse, are eligible for full Real Estate Tax relief regardless of income and assets.

FISCAL IMPACT:

The FY 2017 real estate tax rate of \$1.13 per \$100 of assessed value results in the revenue projections outlined in the FY 2017 Advertised Budget Plan. If the tax rate is lowered to a rate of \$1.0692 per \$100 of assessed value as described by Virginia Code Section 58.1-3321, then the revenue projection set forth in the FY 2017 Advertised Budget Plan would decrease by \$141,708,530.

ENCLOSED DOCUMENTS:

Attachment I - Brief Synopsis of the FY 2017 Budget
Attachment II - Draft Resolution Adopting Fairfax County Tax Rates for FY 2017
Attachment III - Notice of a Proposed Tax Increase for FY 2017

STAFF:

Edward L. Long Jr., County Executive
Joe Mondoro, Chief Financial Officer
Kevin C. Greenlief, Director, Department of Tax Administration
Corinne Lockett, Assistant County Attorney

**COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX**

In accordance with Virginia law, notice is hereby given that the Board of Supervisors of Fairfax County, Virginia, will meet in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on April 5 at 4:00 P.M. and April 6 and April 7 at 1:00 P.M. The purpose of these meetings shall be to consider the adoption of a FY 2017 County Budget and to consider such tax rate changes as described therein. A brief synopsis of the FY 2017 Advertised Budget Plan is shown below. Citizens may appear and be heard for and against the following estimates of revenues, expenditures, transfers and surpluses as contained in the FY 2017 Advertised Budget Plan and proposed tax rate changes. Fiscal Year 2017 begins on July 1, 2016 and ends on June 30, 2017.

At the same time, the Board of Supervisors will hear public testimony regarding proposed adoption of the FY 2017 – FY 2021 Advertised Capital Improvement Program (With Future Fiscal Years to 2026).

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at (703) 324-3151 to be placed on the Speakers List or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as other documents relating to the aforementioned subjects, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional Public Libraries.

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Copies of the FY 2017 Advertised Budget Plan and the FY 2017 – FY 2021 Advertised Capital Improvement Program (With Future Fiscal Years to 2026) are available on the Internet at <http://www.fairfaxcounty.gov/dmb> and at the Office of the Clerk to the Board of Supervisors at 12000 Government Center Parkway, Suite 533, Fairfax, Virginia.

Fund	EXPENDITURES	TRANSFERS OUT	TOTAL EXPENDITURES & TRANSFERS OUT	TAX REQUIRED			OTHER RESOURCES					
				AMOUNT	FY 2017 RATE	FY 2016 RATE	FY 2015 RATE	STATE AID	FEDERAL AID	OTHER RECEIPTS	TRANSFERS IN	APPROPRIATED FROM/ADDED TO SURPLUS
GOVERNMENTAL FUNDS												
General Fund Group												
10001 General Fund ¹	\$1,477,872,999	\$2,510,373,876	\$3,988,246,875	\$2,983,640,662	1.130 a 4.57 b	1.090 a 4.57 b	1.090 a 4.57 b	\$308,650,318 c	\$29,979,502	\$885,643,705	\$10,165,872	(\$30,033,184) d
10010 Revenue Stabilization	0	0	0	0				0	0	1,000,000	22,468,615	(23,468,615)
10020 Consolidated Community Funding Pool	11,141,700	0	11,141,700	0				0	0	0	11,141,700	0
10030 Contributory Fund	13,184,484	0	13,184,484	0				0	0	0	13,184,484	25,711
10040 Information Technology	6,814,000	0	6,814,000	0				0	0	43,760	6,770,240	0
Total General Fund Group	\$1,509,013,183	\$2,510,373,876	\$4,019,387,059	\$2,983,640,662				\$308,650,318	\$29,979,502	\$886,887,465	\$63,705,200	(\$53,476,088)
Debt Service Funds												
20000 Consolidated Debt Service	\$320,522,544	\$13,076,233	\$333,598,777	\$0				\$0	\$2,100,000	\$590,000	\$330,918,777	\$0
Capital Project Funds												
30000 Metro Operations and Construction	\$41,051,989	\$2,695,571	\$43,747,560	\$0				\$0	\$0	\$30,000,000	\$13,747,560	\$0
30010 General Construction and Contributions	28,053,427	0	28,053,427	0				0	0	4,700,000	23,353,427	0
30020 Infrastructure Replacement and Upgrades	5,000,000	0	5,000,000	0				0	0	0	5,000,000	0
30030 Library Construction	0	0	0	0				0	0	0	0	0
30040 Contributed Roadway Improvement	0	189,605	189,605	0				0	0	189,605	0	0
30050 Transportation Improvements	0	0	0	0				0	0	0	0	0
30060 Pedestrian Walkway Improvements	400,000	0	400,000	0				0	0	0	400,000	0
30070 Public Safety Construction	100,000	0	100,000	0				0	0	0	100,000	0
30080 Commercial Revitalization Program	0	0	0	0				0	0	0	0	0
30090 Pro Rate Share Drainage Construction	0	0	0	0				0	0	0	0	0
30300 The Penny for Affordable Housing	12,251,850	0	12,251,850	11,700,000 e				0	0	551,850	0	0
30310 Housing Assistance Program	0	0	0	0				0	0	0	0	0
30400 Park Authority Bond Construction	0	0	0	0				0	0	0	0	0
S31000 Public School Construction	175,955,030	0	175,955,030	0				0	0	155,806,000	20,149,030	0
Total Capital Project Funds	\$262,812,296	\$2,885,176	\$265,697,472	\$11,700,000				\$0	\$0	\$19,247,455	\$62,750,017	\$0
Special Revenue Funds												
40000 County Transit Systems	\$99,880,480	\$0	\$99,880,480	\$0	0.125 f	0.125 f	0.125 f	\$21,447,928	\$0	\$9,204,402	\$69,228,150	\$0
40010 County and Regional Transportation Projects	63,874,776	31,602,930	95,477,706	52,754,694	0.125 f	0.125 f	0.125 f	42,723,012	0	0	0	0
40030 Cable Communications	13,488,171	13,635,135	27,123,306	0				0	0	25,863,861	0	1,259,445
40040 Fairfax-Falls Church Community Services Board	159,335,227	0	159,335,227	0				11,716,017	4,228,673	20,504,597	122,885,940	0
40050 Reston Community Center	8,650,339	0	8,650,339	7,075,090	0.047 g	0.047 g	0.047 g	0	0	1,255,150	0	320,099
40060 McLean Community Center	8,791,646	0	8,791,646	4,393,481	0.023 g	0.023 g	0.023 g	0	0	1,343,810	0	3,094,355
40070 Burgundy Village Community Center	45,711	0	45,711	30,352	0.020 h	0.020 h	0.020 h	0	0	33,025	0	(17,666)
40080 Integrated Pest Management Program	3,185,712	141,000	3,326,712	2,326,730	0.001 i	0.001 i	0.001 i	0	0	7,691	0	992,291
40090 E-911	46,824,921	0	46,824,921	0				4,600,000	0	42,172,354	0	52,567
40100 Stormwater Services	62,950,000	1,125,000	64,075,000	64,075,000	0.0275 j	0.0250 j	0.0225 j	0	0	0	0	0
40110 Dulles Rail Phase I Transportation Improvement District	17,345,313	0	17,345,313	25,097,325	0.19 k	0.19 k	0.21 k	0	0	0	0	(7,752,012)
40120 Dulles Rail Phase II Transportation Improvement District	500,000	0	500,000	15,814,410	0.20 l	0.20 l	0.20 l	0	0	0	0	(15,314,410)
40125 Metrolink Parking System Pledged Revenues	8,785,213	0	8,785,213	0				0	0	5,967,000	0	2,818,213
40130 Leaf Collection	2,187,182	0	2,187,182	0	0.015 m	0.015 m	0.015 m	128,034	0	2,316,831	0	(129,649)
40140 Refuse Collection and Recycling Operations	19,292,040	548,000	19,840,040	0	345 n	345 n	345 n	0	0	18,634,619	0	1,077,387
40150 Refuse Disposal	43,892,758	577,000	44,469,758	0	62 o	62 o	62 o	0	0	45,557,601 p	0	(1,087,843)
40160 Energy Resource Recovery (ERR) Facility	26,805,549	49,000	26,854,549	0	29 q	29 q	29 q	0	0	19,716,811	0	7,137,738
40170 185 Refuse Disposal	8,807,949	186,000	8,993,949	0	26.50 r	24.50 r	22.50 r	0	0	9,124,137	0	(130,188)
40180 Tysons Service District	0	0	0	8,337,356	0.06 s	0.06 s	0.04 s	0	0	0	0	(8,337,356)
40300 Housing Trust	484,155	0	484,155	0				0	0	484,155	0	0
40330 Elderly Housing Programs	3,980,904	0	3,980,904	0				0	0	1,657,744	1,923,159	1
40360 Homeowner and Business Loan Programs	2,331,087	0	2,331,087	0				0	0	2,250,174	0	54,783
50000 Federal/State Grants	109,314,388	0	109,314,388	0				31,174,522	70,928,744	1,730,286	5,480,836	0
50800 Community Development Block Grant	4,873,926	0	4,873,926	0				0	4,873,926	0	0	0
50810 HOME Investment Partnerships Program	1,431,830	0	1,431,830	0				0	1,431,830	0	0	0

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Fund	TAX REQUIRED				OTHER RESOURCES								
	TOTAL EXPENDITURES & TRANSFERS OUT			AMOUNT	FY 2017 RATE	FY 2016 RATE	FY 2015 RATE	STATE AID	FEDERAL AID	OTHER RECEIPTS	TRANSFERS IN	APPROPRIATED FROM/(ADDED TO) SURPLUS	
Special Revenue Funds (Cont.)													
S10000 Public School Operating ²	2,576,155,067	28,988,208	2,605,143,275	0				593,626,528	42,219,310	63,757,098	1,880,507,945	25,032,394	
S40000 Public School Food and Nutrition Services	90,153,330	0	90,153,330	0				1,153,857	36,075,261	43,891,126	0	9,033,086 t	
S43000 Public School Adult and Community Education	9,510,462	0	9,510,462	0				744,292	1,666,438	6,864,732	235,000	0	
S50000 Public School Grants & Self Supporting Programs	73,629,503	0	73,629,503	0				9,909,251	30,905,754	8,406,205	21,857,325	2,550,968 u	
Total Special Revenue Funds	\$3,466,107,639	\$76,852,273	\$3,542,959,912	\$179,904,438				\$717,223,441	\$192,356,066	\$330,743,409	\$2,102,118,355	\$20,614,203	
TOTAL GOVERNMENTAL FUNDS	\$5,558,455,662	\$2,603,187,558	\$8,161,643,220	\$3,175,245,100				\$1,025,873,759	\$224,435,568	\$1,209,458,329	\$2,559,492,349	(\$32,861,885)	
PROPRIETARY FUNDS													
Internal Service Funds													
60000 County Insurance	\$25,827,740	\$0	\$25,827,740	\$0				\$0	\$0	\$720,859	\$24,162,115	\$944,766	
60010 Department of Vehicle Services	80,886,874	0	80,886,874	0				0	0	78,656,220	0	2,240,654	
60020 Document Services Division	9,742,167	0	9,742,167	0				0	0	5,453,800	3,941,831	346,536	
60030 Technology Infrastructure Services	42,819,296	0	42,819,296	0				0	0	36,815,242	3,545,391	2,458,663	
60040 Health Benefits	189,292,804	0	189,292,804	0				0	0	192,247,034	0	(2,954,230)	
S60000 Public School Insurance	22,575,354	0	22,575,354	0				0	0	13,081,339	0	9,494,015 v	
S62000 Public School Health and Flexible Benefits	429,758,354	0	429,758,354	0				0	0	391,181,466	0	38,576,888 w	
Total Internal Service Funds	\$800,912,589	\$0	\$800,912,589	\$0				\$0	\$0	\$718,155,960	\$31,649,337	\$51,107,292	
Enterprise Funds													
69000 Sewer Revenue	\$0	\$225,100,000	\$225,100,000	\$0	6.68 x	6.65 x	6.62 x	\$0	\$0	\$224,472,112	\$0	\$627,888	
					7,750 y	7,750 y	7,750 y						
					24.68 z	20.15 z	15.86 z						
69010 Sewer Operation and Maintenance	98,697,646	2,850,000	101,547,646	0				0	0	0	101,550,000	(2,354)	
69020 Sewer Bond Parity Debt Service	23,510,500	0	23,510,500	0				0	0	0	22,900,000	610,500 aa	
69030 Sewer Bond Debt Reserve	0	0	0	0				0	0	5,006,173	0	(5,006,173)	
69040 Sewer Bond Subordinate Debt Service	26,218,147	0	26,218,147	0				0	0	0	26,000,000	218,147	
69300 Sewer Constitution Improvements	74,650,000	0	74,650,000	0				0	0	0	74,650,000	0	
69310 Sewer Bond Construction	104,993,827	0	104,993,827	0				0	0	104,993,827	0	0	
Total Enterprise Funds	\$328,070,120	\$227,950,000	\$556,020,120	\$0				\$0	\$0	\$334,472,112	\$225,100,000	(\$3,551,992)	
TOTAL PROPRIETARY FUNDS	\$1,128,982,709	\$227,950,000	\$1,356,932,709	\$0				\$0	\$0	\$1,052,628,072	\$256,749,337	\$47,555,300	
FIDUCIARY FUNDS													
Agency Funds													
70000 Route 28 Taxing District	\$11,402,824	\$0	\$11,402,824	\$10,402,824	0.18 ab	0.18 ab	0.18 ab	\$0	\$0	\$1,000,000	\$0	\$0	
70040 Mosiac District Community Development Authority	5,531,544	0	5,531,544	5,531,544				0	0	0	0	0	
Total Agency Funds	\$16,934,368	\$0	\$16,934,368	\$15,934,368				\$0	\$0	\$1,000,000	\$0	\$0	
Trust Funds													
73000 Employees' Retirement Trust	\$316,052,401	\$0	\$316,052,401	\$0				\$0	\$0	\$488,648,836	\$0	(\$172,596,435)	
73010 Uniformed Employees Retirement Trust	107,670,019	0	107,670,019	0				0	0	199,347,751	0	(91,677,732)	
73020 Police Retirement Trust	84,233,227	0	84,233,227	0				0	0	152,606,055	0	(68,372,828)	
73030 OPEB Trust	10,317,370	0	10,317,370	0				0	1,000,000	1,544,836	16,000,000	(8,227,466)	
S71000 Educational Employees' Retirement	208,671,625	0	208,671,625	0				0	0	382,697,133	0	(174,025,508)	
S71100 Public School OPEB Trust	17,494,500	0	17,494,500	0				0	0	27,546,013	0	(10,051,513)	
Total Trust Funds	\$744,439,142	\$0	\$744,439,142	\$0				\$0	\$1,000,000	\$1,252,390,824	\$16,000,000	(\$524,951,482)	
TOTAL FIDUCIARY FUNDS	\$761,373,510	\$0	\$761,373,510	\$15,934,368				\$0	\$1,000,000	\$1,253,390,824	\$16,000,000	(\$524,951,482)	
TOTAL ALL FUNDS	\$7,448,811,881	\$2,831,137,558	\$10,279,949,439	\$3,191,179,468				\$1,025,873,759	\$225,435,568	\$3,515,477,025	\$2,832,241,686	(\$510,238,067)	

¹ Personal Property taxes of \$21,313,944 that are reimbursed by the Commonwealth as a result of the Personal Property Tax Relief Act of 1998 are included in the Revenue from the Commonwealth category in accordance with guidelines from the State Auditor of Public Accounts.

² The proposed County General Fund transfer for school operations in FY 2017 totals \$1,879,907,945 which reflects an increase of \$54,754,600, or 3.0 percent, over the FY 2016 Adopted Budget (Plan level). It should be noted that the actual transfer request approved by the School Board on February 4, 2016 reflects a General Fund transfer of \$1,947,823,808, an increase of \$122,670,463, or 6.7 percent, over the FY 2016 Adopted Budget (Plan). The advertisement expenditure total for School Operating reflects the level that is supportable by the proposed General Fund transfer.

FOOTNOTES

		Tax Required		
	Revenue Amount	2017 Rate	2016 Rate	2015 Rate
OTHER REAL ESTATE & PERSONAL PROPERTY TAX RATES				
PUBLIC SERVICE CORPORATIONS				
Equalized a	\$40,539,523	1.130	1.090	1.090
Vehicles b	377,182	4.57	4.57	4.57
OTHER				
Mining and Manufacturing Machinery and Tools (General Fund Revenue) b	1,478,539	4.57	4.57	4.57
Research and Development (General Fund Revenue) b	20,955	4.57	4.57	4.57
Antique Automobiles b	-	0.01	0.01	0.01
Mobile Homes a	171,293	1.130	1.090	1.090
Van Pools-Privately Owned Vans b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of a Volunteer Rescue Squad or Volunteer Fire Department b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of the Auxiliary Police b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of the Auxiliary Deputy Sheriff b	-	0.01	0.01	0.01
Homeowners Associations Furniture, office equipment and maintenance equipment b	-	0.01	0.01	0.01
Aircraft and Flight Simulators b	-	0.01	0.01	0.01
Motor Vehicles Specially Equipped to Provide Transportation to Physically Handicapped Individuals b	-	0.01	0.01	0.01
Boats b	-	0.01	0.01	0.01
Motor Vehicles Owned by Disabled Veterans b	-	0.01	0.01	0.01
Motor Vehicles Owned by Certain Qualifying Elderly and Disabled Individuals b	-	0.01	0.01	0.01
Special Service District for Pest Infestations i	2,326,730	0.001	0.001	0.001

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- a. Real Estate Tax Rate per \$100 of assessed value. **It should be noted that the FY 2017 Advertised Budget Plan proposes a tax rate of \$1.130 per \$100 of assessed value. The real estate tax bill for the typical residential homeowner would increase by \$304 in FY 2017 with a real estate tax rate of \$1.130 per \$100 of assessed value. Advertising an increase in the rate does not prevent the Board from lowering any advertised tax rate, but a higher tax rate cannot be imposed without advertising the higher rate.**
- b. Personal Property Tax Rate per \$100 of assessed value (excluding household furnishings). Tax collections, as a percentage of total taxes levied, are estimated as follows:
 - 10001 General Fund - Real Estate, 99.70 percent; Personal Property, 98.0 percent
 - Sanitary District - Refuse Assessments, 100 percent.
- c. Percentage of state "Car Tax" subsidy on qualifying personal property tax levy. On November 21, 2005, as part of Action Item 3, the Board of Supervisors adopted a resolution to implement the state "Car Tax" changes found in the Executive Amendments to the 2004-2006 Biennial Budget, specifically state Budget Item 503(E) of the Central Appropriations Act, in accordance with the requirements set forth in Virginia Code §§ 58.1-3524(C)(2) and 58.1-3912(E), as amended by Chapter 1 of the Acts of Assembly (2004 Special Session 1) and as set forth in Item 503(E)(Personal Property Tax Relief Program) of Chapter 951 of the 2005 Acts of Assembly.

Beginning in tax year 2006, the state "Car Tax" subsidy on qualifying vehicles was "capped" to a statewide total of \$950 million. Based on the final report from the state Auditor of Public Accounts, dated February 2006, Fairfax County's share of this \$950 million was fixed at 22.2436%, or \$211,313,944.16. The annual subsidy is frozen at this amount and is factored into the FY 2017 Advertised Budget Plan.

Consistent with the November 21, 2005, Board resolution, the state "Car Tax" funding is estimated to provide a 100% subsidy of the levy for tax year 2016 for qualifying vehicles valued at \$1,000 or less. Furthermore, the state "Car Tax" funding is estimated to provide a 62% subsidy of the tax year 2016 levy for all other qualifying vehicles on the value up to \$20,000.

- d. Fund 10001, General Fund, does not reflect carryover of FY 2015 Audit Adjustment reserve of (\$2,078,693), Reserve for Potential FY 2016 One-Time Requirements of (\$5,961,031), and FY 2016 Mid-Year Revenue Adjustment reserve of (\$12,462,861) from FY 2016 to FY 2017.
- e. Real Estate revenue reflected in Fund 30300, The Penny for Affordable Housing Fund, reflects the Board of Supervisors policy to allocate the approximate value of one penny on the real estate tax rate to this program. It should be noted that the FY 2017 Advertised Budget Plan includes the allocation of one-half penny on the real estate tax rate to this fund.
- f. Additional tax assessment per \$100 of assessed value for commercial and industrial property in the County to support transportation.
- g. Operating costs and debt service - Community Center. Tax Rate per \$100 of assessed value.
- h. Utilities and other operating costs - Community Center. Tax Rate per \$100 of assessed value.
- i. Additional special tax levy of real estate within Fairfax County, but exclusive of the Lake Barcroft Water Improvement District to control infestations of pests. Tax Rate per \$100 of assessed value.
- j. Additional special tax levy of real estate to support operating and construction requirements for the stormwater management program. Tax Rate per \$100 of assessed value.

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k. Additional tax assessment per \$100 of assessed value for commercial and industrial property for the Phase I Dulles Rail Transportation Improvement District.

l. Additional tax assessment per \$100 of assessed value for commercial and industrial property for the Phase II Dulles Rail Transportation Improvement District.

m. Leaf Collection rate per \$100 of assessed value. (See districts listed below)

Leaf Collection:

Small District 2 Braddock
Local District 1A11 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B1 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville
Small District 10 Dranesville
Small District 12 Dranesville
Small District 15 Dranesville
Local District 1B Lee
Local District 1C Lee
Local District 1D Lee
Local District 1E Lee

Small District 1 Mason
Local District 1A Mason
Small District 2 Mason
Small District 4 Mason
Local District 7A Mason
Small District 9 Mason
Small District 10 Mason
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon
Local District 1E Mount Vernon
Small District 1 Providence
Small District 2 Providence
Small District 4 Providence
Small District 6 Providence
Small District 7 Providence
Small District 8 Providence

n. Refuse Collection assessment - the base annual charge for refuse collection service to be added to the regular real estate tax bill. (See districts listed below)

Refuse Service:

Small District 2 Braddock
Small District 3 Braddock
Small District 2 Hunter Mill
Small District 3 Hunter Mill
Local District 5A Hunter Mill
Local District 1A1 Dranesville
Local District 1A2 Dranesville
Local District 1A3 Dranesville
Local District 1A4 Dranesville
Local District 1A5 Dranesville
Local District 1A6 Dranesville
Local District 1A8 Dranesville
Local District 1A9 Dranesville
Local District 1A11 Dranesville
Local District 1A12 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B Dranesville
Local District 1B1 Dranesville
Local District 1B2 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 4 Dranesville
Small District 6 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville

Small District 9 Dranesville
Small District 10 Dranesville
Small District 11 Dranesville
Small District 12 Dranesville
Small District 13 Dranesville
Small District 14 Dranesville
Small District 15 Dranesville
Small District 1 Lee
Local District 1A Lee
Local District 1B Lee
Local District 1C Lee
Local District 1D Lee
Local District 1E Lee
Small District 2 Lee
Small District 3 Lee
Small District 4 Lee
Small District 1 Mason
Local District 1A Mason
Local District 1B Mason
Local District 1C Mason
Local District 1D Mason
Local District 1F Mason
Small District 2 Mason
Small District 3 Mason
Small District 4 Mason
Small District 5 Mason
Small District 6 Mason
Small District 7 Mason

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Refuse Service (continued):

Local District 7A Mason
Small District 8 Mason
Small District 9 Mason
Small District 10 Mason
Small District 11 Mason
Small District 1 Mount Vernon
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon
Local District 1E Mount Vernon
Small District 2 Mount Vernon
Local District 2A Mount Vernon
Local District 2B Mount Vernon

Small District 1 Providence
Local District 1A Providence
Local District 1B Providence
Small District 3 Providence
Small District 4 Providence
Small District 6 Providence
Small District 7 Providence
Small District 8 Providence
Small District 9 Providence
Small District 11 Providence
Small District 12 Providence
Small District 13 Providence
Small District 4 Springfield
Small District 6 Springfield

- o. Per ton refuse disposal fee charged to County refuse collectors, other jurisdictions, and private haulers.
- p. Includes revenues from user fees charged at the Recycling and Disposal Center. Information regarding the schedule of fees is available from the Department of Public Works and Environmental Services (DPWES) Solid Waste Management Program at 12000 Government Center Parkway, Suite 458, Fairfax, Virginia, 22035 or online at www.fairfaxcounty.gov/dpwes. Residents who use the Recycling and Disposal Center are charged for disposal of waste based on weight and category of waste. There are different fees for disposal of brush, yard waste, white goods, tires, and other materials.
- q. Per ton tipping fee charged to the County for the incineration of refuse and the disposal of ash generated from the process.
- r. Per ton ash disposal fee charged to the County and participating jurisdictions.
- s. Additional tax assessment per \$100 of assessed value for the Tysons Service District.
- t. Fund S40000, Public School Food and Nutrition Services, assumes carryover of General Reserve of \$9,033,086 from FY 2016 to FY 2017.
- u. Fund S50000, Public School Grants and Self Supporting Programs, assumes carryover of reserves of \$2,550,968 from FY 2016 to FY 2017.
- v. Fund S60000, Public School Insurance Fund, assumes carryover of Allocated Reserve of \$9,494,015 from FY 2016 to FY 2017.
- w. Fund S62000, Public School Health and Flexible Benefits, assumes carryover of premium stabilization reserve of \$38,576,888 from FY 2016 to FY 2017.
- x. Sewer service rate per 1,000 gallons of water.
- y. Sewer availability fee for single family homes.
- z. Sewer Service per bill Base Charge.
- aa. Fund 69020, Sewer Bond Parity Debt Service, does not reflect non-appropriated amortization expense of (\$25,000).
- ab. Additional tax assessment per \$100 of assessed value for road improvements to State Route 28.

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Room in the Fairfax County Government Center at Fairfax, Virginia, on Tuesday, April 26, 2016, at which meeting a quorum was present and voting, the following resolution was adopted:

**RESOLUTION ADOPTING TAX RATES
FOR FAIRFAX COUNTY**

FISCAL YEAR 2017

BE IT RESOLVED that, pursuant to the provisions of Virginia Code § 58.1-3001, and after having first complied with the provisions of the Virginia Code §§ 15.2-2506 and 58.1-3321, the Board does hereby establish the tax levies for the fiscal budget year beginning July 1, 2016, and ending June 30, 2017, and calendar tax year beginning January 1, 2016 and ending December 31, 2016, as follows to wit:

COUNTY LEVIES

General provisions. The County property taxes are levied on each \$100.00 of assessed valuation of real estate and tangible personal property, excluding household furnishings, and including machinery and tools of mining, manufacturing, radio or television broadcasting, dairy, dry cleaning or laundry firms, and all personal property of research and development firms, in the County, including such property within the incorporated towns that are within the County. Except as otherwise stated herein, all such taxes are imposed generally pursuant with Virginia law on all taxable property throughout the County, including the incorporated towns therein, and the revenues derived from such levies shall be appropriated by the Board of Supervisors in accordance with Virginia law.

Real Estate*

On each \$100.00 of the assessed valuation of real estate and improvements on real estate in the County the tax rate shall be \$1.130

*Tax will be levied and collected in two semi-annual tax billings.

Commercial and Industrial Real Estate Tax for Transportation*

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate in the County the tax rate in support of transportation shall be an additional \$0.125

*Tax will be levied and collected in two semi-annual tax billings.

Personal Property

On each \$100.00 of assessed valuation of tangible personal property, including all property separately classified by Virginia Code § 58.1-3503, the tax rate shall be \$4.57

Except for the following:

Mobile Homes

On each \$100.00 of assessed valuation of mobile homes, as separately classified by Virginia Code § 58.1-3506(A)(10), the tax rate shall be \$1.130

Machinery and Tools

On each \$100.00 of assessed valuation of machinery and tools, as separately classified by Virginia Code § 58.1-3507, the tax rate shall be \$4.57

Research and Development

On each \$100.00 of assessed valuation of tangible personal property used or employed in a research and development business, as separately classified by Virginia Code § 58.1-3506(A)(7), the tax rate shall be \$4.57

Certain Personal Property of Homeowner Associations

On each \$100.00 of assessed valuation of furniture, office, and maintenance equipment, exclusive of motor vehicles, which are owned and used by an organization whose real property is assessed in accordance with Virginia Code § 58.1-3284.1 and which is used by that organization for the purpose of maintaining or using the open or common space within a residential development as classified by Virginia Code § 58.1-3506(A)(24), the tax rate shall be \$0.01

Van Pools - Privately Owned Vans

On each \$100.00 of assessed valuation of privately owned vans, as separately classified by Virginia Code § 58.1-3506(A)(13), the tax rate shall be \$0.01

Privately owned vans means vans with a seating capacity of seven to fifteen persons used exclusively pursuant to a ridesharing agreement as defined in Virginia Code § 46.2-1400, and which have been certified as such by the Director of the Department of Tax Administration.

Motor Vehicles Owned by Members of a
Volunteer Rescue Squad or Volunteer Fire Department

On each \$100.00 of assessed valuation of motor vehicles as separately classified by Virginia Code § 58.1-3506(A)(15), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A) (15), shall be defined to mean one motor vehicle owned or leased by each member of a volunteer rescue squad or volunteer fire department which is regularly used by such members to respond to emergency calls and certified as such by the Chief or Head of the Volunteer Organization and the Department of Tax Administration.

Motor Vehicles Specially Equipped to Provide
Transportation for Physically Handicapped Individuals

On each \$100.00 of assessed valuation of motor vehicles as separately classified by Virginia Code § 58.1-3506(A)(14), the tax rate shall be \$0.01

Specially equipped means any vehicle which has been modified specifically for the purpose of transporting physically handicapped individuals and the vehicle is certified as such by the Director of the Department of Tax Administration.

Motor Vehicles Owned
By Certain Qualifying Elderly and Disabled Individuals

On each \$100.00 of assessed valuation of certain motor vehicles as classified by Virginia Code § 58.1-3506.1, the tax rate shall be \$0.01

Applies to one motor vehicle owned and used by certain elderly and disabled persons who qualify on the basis of income and net worth.

Motor Vehicles Owned
By Persons Who Have Been Appointed to Serve as Auxiliary Police Officers

On each \$100.00 of assessed valuation of motor vehicles as classified by Virginia Code § 58.1-3506(A)(20), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A) (20), shall be defined to mean one motor vehicle owned or leased by an Auxiliary Police Officer to respond to auxiliary police duties, subject to certification as required by the provisions of the authorizing statute.

Motor Vehicles Owned
By Persons Who Have Been Appointed to Serve as Auxiliary Deputy Sheriffs

On each \$100.00 of assessed valuation of motor vehicles as classified by Virginia Code § 58.1-3506 (A)(32), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A)(32), shall be defined to mean one motor vehicle owned or leased by an Auxiliary Deputy Sheriff to respond to auxiliary deputy sheriff duties, subject to certification as required by the provisions of the authorizing statute.

Aircraft and Flight Simulators

On each \$100.00 of assessed valuation of aircraft and flight simulators, as classified by Virginia Code § 58.1-3506(A)(2), (3), (4) and (5) the tax rate shall be \$0.01

Antique Motor Vehicles

On each \$100.00 of assessed valuation of antique motor vehicles, as separately classified by Virginia Code § 58.1-3506(A)(6), the tax rate shall be \$0.01

Antique motor vehicles or antique automobiles means every motor vehicle which was actually manufactured or designated by the manufacturer as a model manufactured in a calendar year not less than twenty-five years ago and is owned solely as a collector's item.

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Resolution Adopting Tax Rates for Fairfax County
Fiscal Year 2017

ATTACHMENT II

Boats

On each \$100.00 of assessed valuation of boats and watercraft, as classified by Virginia Code § 58.1-3506(A)(1), (12), (28), (29), (35) and (36) the tax rate shall be \$0.01

Motor Vehicles Owned By Qualified Disabled Veterans

On each \$100.00 of assessed valuation of motor vehicles, as classified by Virginia Code § 58.1-3506(A)(19), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506(A)(19) shall be defined to mean one motor vehicle owned and regularly used by qualified disabled veterans, subject to certification as required by the provisions of the authorizing statute.

SANITARY DISTRICT LEVIES*

Local District 1A Lee

(Burgundy Village Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Local District 1A Lee in the County, the tax rate shall be \$0.02

Small District 1 Dranesville

(McLean Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Small District 1 Dranesville in the County, the tax rate shall be \$0.023

Small District 5 Hunter Mill

(Reston Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Small District 5 Hunter Mill in the County, the tax rate shall be \$0.047

*Tax will be levied and collected in two semi-annual tax billings.

Leaf Collection:

Small District 2 Braddock
Local District 1A11 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B1 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville
Small District 10 Dranesville
Small District 12 Dranesville
Small District 15 Dranesville
Local District 1B Lee

Local District 1C Lee
Local District 1D Lee
Local District 1E Lee
Small District 1 Mason
Local District 1A Mason
Small District 2 Mason
Small District 4 Mason
Local District 7A Mason
Small District 9 Mason
Small District 10 Mason
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon

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Resolution Adopting Tax Rates for Fairfax County
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ATTACHMENT II

Leaf Collection (continued):

Local District 1E Mount Vernon
Small District 1 Providence
Small District 2 Providence

Small District 4 Providence
Small District 6 Providence
Small District 7 Providence
Small District 8 Providence

On each \$100.00 of assessed valuation of real estate within the boundaries of the above-numerated Districts in the County, the tax rate shall be \$0.015

On any real estate which is deleted from a sanitary district effective July 1, 2016, as a result of the contraction of such sanitary district, such real estate will be entitled to pro rata abatement from the amount of the annual charge hereby established for leaf collection.

On any real estate, which is added to a sanitary district effective July 1, 2016, as a result of either the creation or the enlargement of a sanitary district, such real estate will be charged a pro rata fee for the annual charge hereby established for leaf collection.

Refuse Service:

Small District 2 Braddock
Small District 3 Braddock
Small District 2 Hunter Mill
Small District 3 Hunter Mill
Local District 5A Hunter Mill
Local District 1A1 Dranesville
Local District 1A2 Dranesville
Local District 1A3 Dranesville
Local District 1A4 Dranesville
Local District 1A5 Dranesville
Local District 1A6 Dranesville
Local District 1A8 Dranesville
Local District 1A9 Dranesville
Local District 1A11 Dranesville
Local District 1A12 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B Dranesville
Local District 1B1 Dranesville
Local District 1B2 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 4 Dranesville
Small District 6 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville
Small District 9 Dranesville
Small District 10 Dranesville
Small District 11 Dranesville
Small District 12 Dranesville
Small District 13 Dranesville
Small District 14 Dranesville
Small District 15 Dranesville
Small District 1 Lee
Local District 1A Lee
Local District 1B Lee
Local District 1C Lee

Local District 1D Lee
Local District 1E Lee
Small District 2 Lee
Small District 3 Lee
Small District 4 Lee
Small District 1 Mason
Local District 1A Mason
Local District 1B Mason
Local District 1C Mason
Local District 1D Mason
Local District 1F Mason
Small District 2 Mason
Small District 3 Mason
Small District 4 Mason
Small District 5 Mason
Small District 6 Mason
Small District 7 Mason
Local District 7A Mason
Small District 8 Mason
Small District 9 Mason
Small District 10 Mason
Small District 11 Mason
Small District 1 Mount Vernon
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon
Local District 1E Mount Vernon
Small District 2 Mount Vernon
Local District 2A Mount Vernon
Local District 2B Mount Vernon
Small District 1 Providence
Local District 1A Providence
Local District 1B Providence
Small District 3 Providence
Small District 4 Providence
Small District 6 Providence
Small District 7 Providence

DRAFT
Resolution Adopting Tax Rates for Fairfax County
Fiscal Year 2017

ATTACHMENT II

Refuse Service (continued):
Small District 8 Providence
Small District 9 Providence
Small District 11 Providence

Small District 12 Providence
Small District 13 Providence
Small District 4 Springfield
Small District 6 Springfield

On each single-family dwelling and on each unit of two-family dwellings, excluding apartments (garden through high-rise), multi-family condominiums (garden through high-rise), and/or other multi-unit dwelling type buildings, existing or under construction January 1, 2016, within the boundaries of the above enumerated Districts, a base annual charge of \$345.00 for refuse collection service to be added to the regular real estate tax bill, and that annual charge shall be subject to penalty and interest charges and becoming a lien against the property if not paid, in the same manner as any other real estate tax.

On any dwelling that is neither completed nor occupied by June 30, 2016, the owner thereof shall, upon application to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling, made prior to December 5, 2016, be entitled to relief in the amount of the pro-rata portion based on the service period of the base annual charge hereby established. The claimant must provide acceptable evidence that the dwelling was not occupied, nor generating waste to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling.

On any dwelling that is neither completed nor occupied by December 31, 2016, the owner thereof shall, upon application to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling, made prior to March 31, 2017, be entitled to relief in the amount of the pro-rata portion based on the service period of the base annual charge hereby established. The claimant must provide acceptable evidence that the dwelling was not occupied, nor generating waste to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling.

On any dwelling that is deleted from a sanitary district, as a result of the contraction of such sanitary district, the owner thereof will be entitled to relief in the amount of a pro rata portion of the base annual charge hereby established when service for refuse and recycling collection service is eliminated based on the service period.

On any dwelling that is added to a sanitary district, as a result of either the creation or the enlargement of a sanitary district or construction within the sanitary district, the owner thereof will be charged a pro rata portion of the base annual charge hereby established when service begins for refuse and recycling collection service based on the service period.

Water Service:

Small District One within Springfield District

On any lot within the district, an annual assessment of \$661 for thirty years commencing July 1, 1993. This annual assessment is for the purpose of providing water service to Clifton Forest, a group of homes located within the Lincoln-Lewis-Vannoy Conservation District.

Small District Three within Springfield District

On any lot within the district, an annual assessment of \$959 commencing January 1, 2003 and ending December 31, 2032. This annual assessment is for the purpose of providing water service to Colchester Road-Lewis Park, a group of 141 homes located within the Lincoln-Lewis-Vannoy Conservation District.

TRANSPORTATION IMPROVEMENT DISTRICT LEVIES*

State Route 28 Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of State Route 28 Transportation Improvement District, as specified by Virginia Code § 15.2-4607, the tax rate shall be \$0.18

Phase I Dulles Rail Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of Phase I Dulles Rail Transportation Improvement District, as specified by Virginia Code § 33.1-435, the tax rate shall be \$0.19

Phase II Dulles Rail Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of Phase II Dulles Rail Transportation Improvement District, as specified by Virginia Code § 33.1-435, the tax rate shall be \$0.20

*Tax will be levied and collected in two semi-annual tax billings.

SPECIAL SERVICE DISTRICT FOR THE CONTROL OF PEST INFESTATIONS*

On each \$100.00 of assessed valuation of real estate within Fairfax County, but exclusive of the Lake Barcroft Water Improvement District, within the service district established by Appendix I of the Fairfax County Code, the tax rate shall be \$0.0010

*Tax will be levied and collected in two semi-annual tax billings.

SPECIAL SERVICE DISTRICT FOR STORMWATER MANAGEMENT*

On each \$100.00 of assessed valuation of real estate within Fairfax County, within the service district, the tax rate shall be \$0.0275

*Tax will be levied and collected in two semi-annual tax billings.

SPECIAL SERVICE DISTRICT FOR TYSONS*

On each \$100.00 of assessed valuation of real estate within Fairfax County, within the service district, the tax rate shall be \$0.06

*Tax will be levied and collected in two semi-annual tax billings.

SERVICE CHARGES FOR AMBULANCE TRANSPORT SERVICE

Pursuant to Fairfax County Code § 4-26-1, each person being transported by any emergency medical services vehicle that is operated or maintained by the County or for which a permit has been issued to the County by the Virginia Office of Emergency Medical Services will be charged (1) a service fee of \$500 for Basic Life Support transport (BLS), (2) \$650 for Advanced Life Support, level 1 transport (ALS1), (3) \$800 for Advanced Life Support, level 2 transport (ALS2), and (4) \$12.00 per mile for ground transport mileage. The term "emergency medical services vehicle" has the definition specified in Virginia Code § 32.1-111.1.

GIVEN under my hand this _____ day of April, 2016

By: _____
Catherine A. Chianese
Clerk to the Board of Supervisors

FAIRFAX COUNTY NOTICE OF PROPOSED REAL PROPERTY TAX INCREASE

In accordance with Virginia Code Section 58.1-3321, notice is hereby given that the Board of Supervisors of Fairfax County, Virginia, will meet in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on April 5, 2016 at 3:00 P.M. At that meeting, the Board of Supervisors shall consider the matters described below.

The Fairfax County Executive has proposed the advertisement of a real estate tax rate of \$1.130 per \$100 of assessed value. The tax rate being proposed represents an increase of \$0.040 over the FY 2016 rate of \$1.090 per \$100 assessed value. It should be noted that the total increase in assessed value of existing properties is expected to be 1.94 percent, including an increase of 1.64 percent for residential real property and an increase of 2.87 percent for non-residential real property. As a result, most property owners will experience an increase in their real estate tax bill. Because the average value of real property in Fairfax County has appreciated by at least one percent, Virginia Code Section 58.1-3321 requires Fairfax County to publish the following notice.

Fairfax County, Virginia proposes to increase property tax levies.

1. **Assessment Increase:** Total assessed value of real property, excluding additional assessments due to new construction or improvements to property, exceeds last year's total assessed value of real property by 1.94 percent.
2. **Lowered Rate Necessary to Offset Increased Assessment:** The tax rate which would levy the same amount of real estate tax as last year, when multiplied by the new total assessed value of real estate with the exclusions mentioned above, would be \$1.0692 per \$100 of assessed value. This rate will be known as the "lowered tax rate."
3. **Effective Rate Increase:** Fairfax County, Virginia, proposes to adopt a tax rate of \$1.130 per \$100 of assessed value. The difference between the lowered tax rate and the proposed rate would be \$0.0608 per \$100, or 5.69 percent. This difference will be known as the "effective tax rate increase."

Individual property taxes may, however, increase at a percentage greater than or less than the above percentage.

4. **Proposed Total Budget Increase:** Based on the proposed real property tax rate and changes in other revenues, the total budget of Fairfax County, Virginia, will exceed last year's by 4.79 percent¹.

A public hearing on this issue will be held at 3:00 P.M. on April 5, 2016 in the Board Auditorium of the Fairfax County Government Center at 12000 Government Center Parkway.

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at (703) 324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as other documents relating to the aforementioned subjects, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia.

ATTACHMENT III

Fairfax County supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Open captioning will be provided in the Board Auditorium. For sign language interpreters or other accommodations, please call the Clerk's Office, (703) 324-3151, TTY 711 (Virginia Relay Center) no later than 48 hours before the public hearing. Assistive listening devices will be available at the meeting.

The Board will conduct a separate public hearing on the FY 2017 Advertised Budget Plan which will commence on April 5, 2016 at 4:00 PM and on April 6 and April 7 at 1:00 PM.

Copies of the FY 2017 Advertised Budget Plan and the Advertised Capital Improvement Program for Fiscal Years 2017-2021 (With Future Fiscal Years to 2026) are available on the Internet at <http://www.fairfaxcounty.gov/dmb> and at the Office of the Clerk to the Board of Supervisors at 12000 Government Center Parkway, Suite 533, Fairfax, Virginia.

A Copy - Teste:

Catherine A. Chianese, Clerk
Board of Supervisors

¹ The total budget increase is based on all revenues received by the General Fund of Fairfax County. Projected FY 2017 disbursements reflect an increase of 2.41 percent over the FY 2016 level.

ACTION – 1

Approval of an Off-Site Parking Request for 6862 Elm Street (Dranesville District)

ISSUE:

Board of Supervisors (Board) approval to permit the use of temporary off-site parking spaces to serve the existing office building located at 6862 Elm Street, Tax Map Number 30-2 ((1)) 61, Dranesville District.

RECOMMENDATION:

The County Executive recommends that the Board approve the use of off-site parking spaces to serve the existing office building located at 6862 Elm Street during the interim construction period for the proposed development of the multi-family building and parking garage approved under RZ 2012-DR-019 pursuant to paragraph 1 of Section 11-102 of Chapter 112 (Zoning Ordinance) of the *Code of the County of Fairfax, Virginia*, based on an analysis of the parking requirements for the existing building and the Parking Plan, #3728-PKS-002-1, subject to the following conditions:

1. The Interim Construction Period shall be limited to 24 months following commencement of construction of the proposed multi-family building and parking garage with a potential six month extension period. The extension may be granted by the Director of the Department of Public Works and Environmental Services (DPWES) upon written request without the need for an additional Board action. Upon the expiration of the interim construction period and any Director approved extension, the use of off-site parking spaces shall immediately cease.
2. A minimum of 139 on-site parking spaces shall be maintained at all times during the interim construction period. Up to ten on-site spaces will be valet stacked spaces.
3. To meet the minimum code required parking, a minimum of 125 off-site parking spaces shall be provided at all times during the interim construction period using a combination of the following two off-site locations:
 - Off-site #1: 90 spaces at 1766 Old Meadow Lane, Tax Map 29-4 ((6)) 96A, (1.9 miles to the off-site parking location). This off-site location #1 may be shifted to an alternate location as specified in condition #10.
 - Off-site #2: 35 spaces at 7929 Westpark Drive, Tax Map 29-4 ((7)) 9, (3.2 miles to the off-site parking location)

Board Agenda Item
March 1, 2016

The location of each parking area is shown on Figure 3 (Off-site Parking and Shuttle Route Preferred Alternative A) in the report titled Parking Plan for an Off-Site Parking Request, prepared by Wells + Associates, dated April 27, 2015 as revised through November 12, 2015 (Parking Plan).

4. In addition to the site's code requirement, the Applicant will provide a minimum of 39 supplemental parking spaces by leasing office space within two nearby office buildings (within 500 feet) and access shall be provided by a valet parking service for the office users arriving at 6862 Elm Street:

- Off-site #3: 8 spaces at 6888 Elm Street, Tax Map 30-2 ((5)) 7
- Off-site #4: 31 spaces at 6861 Elm Street, Tax Map 30-2 ((10)) 3

The location of each supplemental parking area is shown on Figure 3 (Off-site Parking and Shuttle Route Preferred Alternative A) of the Parking Plan.

5. The Applicant shall provide evidence satisfactory to the Director demonstrating the right to use such off-site parking spaces as permitted during the interim construction period.
6. The Site Plan for the proposed development shall include:
 - Copy of Figures 3 and 4 showing the locations of off-site parking spaces per conditions #3, #4 and #10.
 - Copy of the off-site parking request approval letter
7. The applicant will provide up to three on-site parking attendants, to be available from 7 AM to 7 PM, to efficiently manage and/or valet park vehicles on-site, and valet vehicles to the off-site nearby supplemental spaces at locations #3 and #4. The management of the spaces shall be done to prevent vehicles from queuing off-site into the public street system.
8. The Applicant will offer an on-demand taxi/shuttle service to shuttle office employees between the off-site locations #1 and #2, and the site.
9. The Applicant will work with the on-site construction firm to assist in managing the parking demand for their construction workers. As necessary, shuttles will be provided to coordinate the shift changes to and from the off-site parking areas and/or the nearby McLean metrorail station or other such site as made available.
10. In the event that construction of the future fire station begins prior to completion of the parking garage on 6862 Elm Street, the Applicant will notify the DPWES Director and make arrangements to lease up to 90 off-site parking spaces at the Cityline Partner's private park and ride facility; on Tax Map 29-4 ((5)) 10A and identified as

Board Agenda Item
March 1, 2016

Off-site #1 on Figure 4 (Off-site Parking and Shuttle Route Alternative B) of the Parking Plan.

11. The applicant shall report to the DPWES Director the frequency of usage of off-site parking locations #1 and #2 every three months during the interim construction period.
12. All parking provided shall comply with the applicable requirements of Article 11 of the Zoning Ordinance and the Fairfax County Public Facilities Manual, including the provisions referencing the Virginia Uniform Statewide Building Code.
13. The conditions of approval shall be binding on the successors of the current owners and/or other applicants and shall be recorded in the Fairfax County land records in a form acceptable to the County Attorney. Upon the expiration of the interim construction period and any extension approved by the DPWES Director in accordance with these conditions, a document vacating the conditions of approval shall subsequently be recorded in the Fairfax County land records in a form acceptable to the County Attorney.
14. Unless the DPWES Director has approved an extension, this approval for the temporary use of off-site parking shall expire without notice 6 months from the date of Board approval if condition #13 has not been satisfied.

TIMING:

Board action is requested on March 1, 2016.

BACKGROUND:

The 109,600 square foot office building located at 6862 Elm Street is situated on a 4.4 acre site located in the southeast quadrant of the intersection of Elm Street (Route 3671) and Fleetwood Road (Route 1825). On July 1, 2014, the Board approved RZ 2012-DR-019 to rezone the site from the C-3, CRD, HC, and SC Districts to the PRM, CRD, HC and SC Districts to permit a mixed use development that includes a proposed multi-family building with a parking garage. The Board also modified the minimum required parking for the non-residential uses to reduce the number of parking spaces by 20 percent; this includes the spaces required for the existing 109,600 square foot office building located at 6862 Elm Street.

The Applicant, JBG, has submitted a parking request to use off-site spaces to serve the existing office building during the construction of the proposed multi-family building and parking garage. The Board may approve the use of such off-site parking spaces subject to agreements or arrangements that will ensure the permanent availability of the

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March 1, 2016

spaces and provisions for a valet or shuttle service to ensure the operation of such service, and when there will be no adverse impact on the site of the parking spaces or the adjacent area pursuant to paragraph 1 of Section 11-102 of the Zoning Ordinance.

The Applicant's parking analysis indicates that, if the request is approved, there will not be an adverse impact to the site or adjacent areas. During the interim construction period, 178 convenient spaces will be available to meet the site's average peak demand of 176 spaces through the use of 139 on-site spaces and 39 nearby supplemental spaces located within 500 feet of the subject office building. For the few times when the demand is exceeded, there will be sufficient off-site spaces available at 1766 Old Meadow Lane (Off-site #1) and 7929 Westpark Drive (Off-site #2); although it's not anticipated that location #2 will be needed. In addition, an on-demand shuttle/taxi service will connect the site to the offsite parking spaces during the interim construction period as required by the Zoning Ordinance 11-102 (1)(B).

Based on the above, staff recommends approval of this parking request. Approval is conditioned on a requirement that the Applicant provide an alternative off-site location in the event that Off-site #1 becomes unavailable. Refer to condition #10. Off-site #1 includes a vacant office building slated to redevelop with a new fire station scheduled for delivery by 2020. It's not anticipated that an alternative location will be needed since the construction at 6862 Elm Street is targeted to be complete before the end of 2017.

Staff's recommendation reflects a coordinated review by the Department of Public Works and Environmental Services, the Department of Planning and Zoning, the Department of Transportation, and the Office of the County Attorney.

FISCAL IMPACT:
None

ENCLOSED DOCUMENTS:

Attachment I – Parking Plan for an Off-Site Parking Request, #3728-PKS-002-1.1, dated April 27, 2015 as revised thru November 12, 2105, prepared by Wells + Associates (pgs. 1-18)

STAFF:

Robert A. Stalzer, Deputy County Executive
James W. Patteson, Director, DPWES
William D. Hicks, Director, Land Development Services, DPWES

WELLS + ASSOCIATES
MEMORANDUM



11441 Robertson Drive
 Suite 201
 Manassas, VA 20109
 703-365-9262
 703-365-9265 FAX
 www.mjwells.com

To: Jeffery Hermann
 Fairfax County Department of Transportation
 Jan Leavitt, Chief
 Department of Public Works & Environmental Services

From: Kevin R. Fellin, P.E.

Re: RZ 2012-DR-019; Elm Street Residential L.L.C.
 2015 Tax Map 30-2 ((1)) 61
 6862 Elm Street

Subject: "Parking Plan" for an Off-Site Parking Request – 3rd Submission
 003728-PKS-002-1.1

Date: April 27, 2015 as Revised Thru November 12, 2015

INTRODUCTION

This memorandum presents a 3rd submission Parking Plan (003728-PKS-002-1.1) conducted on behalf of The JBG Companies (the Applicant). The purpose of the Parking Plan is to present an off-site parking request to permit the use of off-site spaces to meet the minimum ordinance parking requirement for an existing office building located at 6862 Elm Street in Fairfax County, Virginia. Elements of this revision are based on a meeting held with Fairfax County's Department of Public Works & Environmental Services (DPWES) and Department of Transportation (FCDOT) on June 8, 2015, their subsequent comments received on June 12, 2015 based on their review of the 1st submission parking plan dated April 27, 2015, and their comments dated October 9, 2015 based on their review of the 2nd submission parking plan dated August 31, 2015. Specifically, this revision considers:

- Responses to comments received from DPWES and FCDOT (**see Attachment I and II**).
- Two additional off-site parking locations that would provide a total of 39 off-site parking spaces within 500 feet of the subject site via a valet/parking attendant parking service
- Details for an on-site parking attendant/valet parking service that will manage and/or park arriving vehicles
- Details for an on demand taxi/shuttle service for office tenants parking at the off-site parking locations to meet code parking requirements

Transportation Consultants
 INNOVATION + SOLUTIONS



WELLS + ASSOCIATES

MEMORANDUM

- Details for an alternative off-site parking location to meet code parking requirements if the primary location becomes unavailable due to redevelopment for a future fire station

The off-site parking space request would only be necessary during an interim construction period when a portion of the site's existing on-site parking supply would be displaced. Details of the "Parking Plan" supporting the off-site parking request are as follows:



WELLS + ASSOCIATES

MEMORANDUM

BACKGROUND

Site Location: The site is located in the southeast quadrant of the Elm Street (Route 3671)/Fleetwood Road (Route 1825) intersection within the McLean Community Business Center (CBC) in the Dranesville Magisterial District of Fairfax County, VA (**see Figure 1**).

Tax Map #: 2015 Tax Map 30-2 ((1)) 61

Parcel Size: 4.43 Acres

Building Size/Use: ±109,600 feet of gross floor area (GFA) of general office

Zoning District: On July 1, 2014, the Board of Supervisors approved RZ 2012-DR-019 (subject to proffers dated June 27, 2014) that rezoned the subject property to (**see Attachment III**): PRM (Planned Residential Mixed Use), CRD (Commercial Revitalization District), HC (Highway Corridor), and SC (Sign Control) Districts

Approved Parking Modification: The Board of Supervisors approved a reduction of required parking for nonresidential uses by 20%. (**see Attachment III**)

Zoning Ordinance Applicability: Article 11-101 provides the following:
“...in the PDH, PDC, PRC and PRM Districts, the provisions of this Part [Part 1 11-100 OFF-STREET PARKING] shall have general application as determined by the Director.” (**see Attachment IV**)

Zoning Ordinance Provision for Off-Site Parking Request: Article 11-102-1 provides the following:
“B. The applicant shall demonstrate to the Board’s satisfaction that such required space shall be generally located within 500 feet walking distance of a building entrance to the use that such space serves or such space will be provided off-site with access via a valet or shuttle service subject to agreements or arrangements approved by the Board which will ensure the operation of such service and that there will not be any adverse impacts on the site of the parking spaces or the adjacent area, or...” (**see Attachment IV**)

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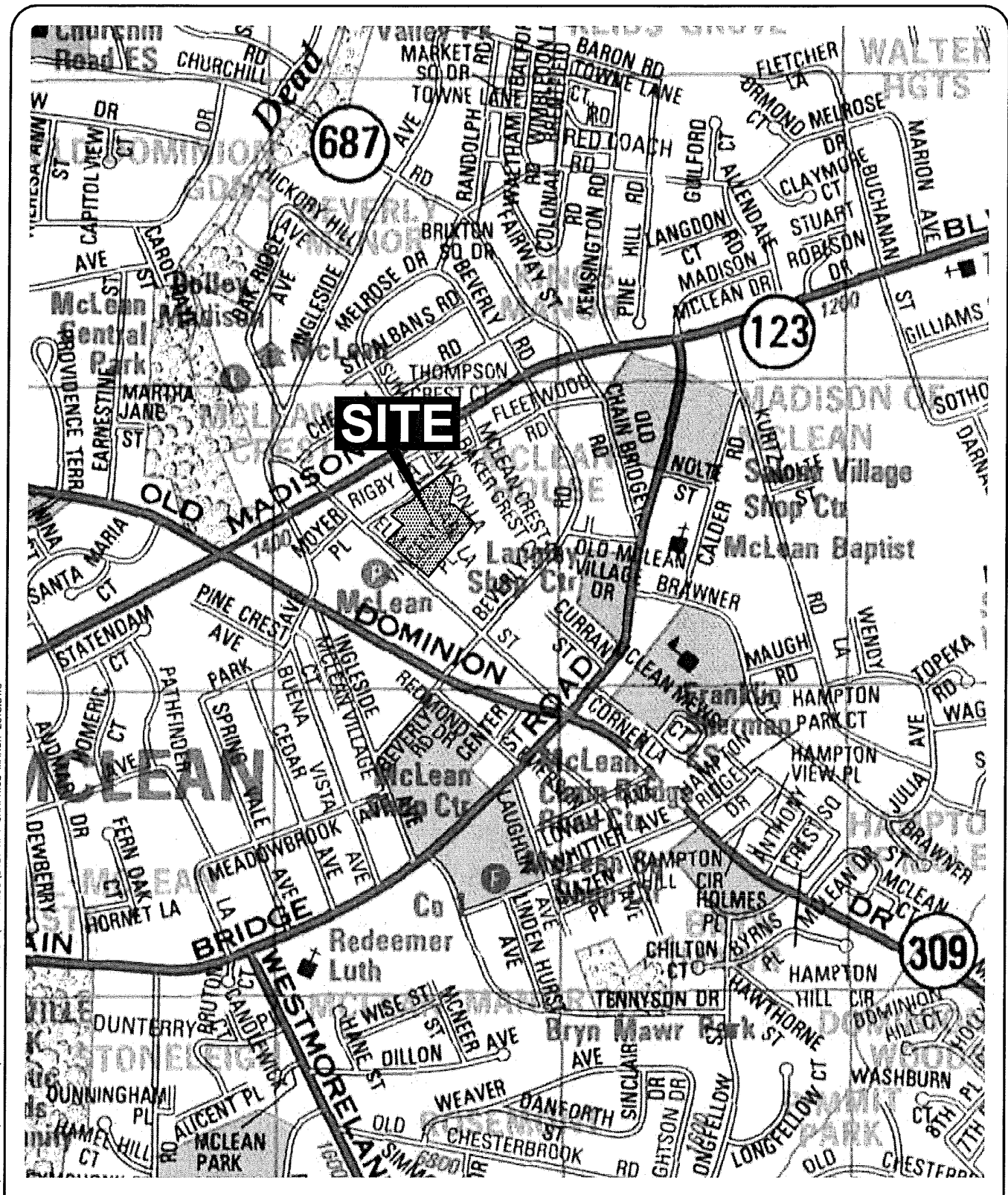


Figure 1
Site Location Map



North

JFC

6862 Elm Street
Fairfax County, Virginia



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Approved Proffers:

The Board accepted proffers dated June 27, 2014 provides the following proffer for off-site parking (Proffer 41.D) (**see Attachment III**):

Interim Office Parking. Prior to site plan approval for the Proposed Development, the Applicant shall prepare and submit to FCDOT a plan for parking the existing Office Uses during the period of construction for the Proposed Development (the "Parking Plan"). The Parking Plan shall identify measures demonstrating that the Applicant will provide parking for the Office Uses in accordance with applicable Zoning Ordinance requirements. Such parking measures may include, but shall not be limited to: (i) a valet service to transfer vehicles to and from the Property and one or more temporary off-site parking locations, (ii) a valet service to stack and park vehicles on the Property, (iii) one or more temporary off-site parking locations with shuttle bus service to and from the Property, (iv) a temporary parking reduction for the Office Uses subject to approval by Fairfax County, and/or (v) one or more vehicle lift structures for the stacking and parking of vehicles on the Property.



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PARKING ASSESSMENT

Parking Requirement: Based on strict application of the zoning ordinance (and inclusive of the approved 20% parking modification), the parking requirement for the office building located at 6862 Elm Street is:
= $\pm 109,600 \text{ GFA} \times 3.0 \text{ spaces per } 1,000 \text{ GFA} \times 0.80$
= 264 spaces

Current Occupancy: $\pm 98,640$ GFA of $109,600$ GFA is currently leased and the remaining $\pm 10,960$ GFA is vacant.

**Parking Occupancy
Measurements:**

Parking occupancy counts were measured nine (9) times from the fall of 2009 to the fall of 2014 (**see Table 1**). Measurements indicated an average peak hour demand of approximately 176 spaces with a maximum daily demand of 188 spaces on Thursday, October 2, 2014. The peak demands generally occurred for single hour during a typical day and it should be noted additional tenant(s) have vacated the subject office building since this data was collected.

Based on field measurements, providing an on-site parking supply of 139 spaces supported by 39 nearby supplemental spaces and 125 off-site parking spaces that are connected by an on-demand shuttle service would more than adequately serve the office building's effective parking needs during the interim construction period.

Construction Period: The construction period is anticipated to last up to 24 months with a potential six (6) month extension period.

On-Site Parking Spaces: The subject site would maintain up to 139 spaces on-site during the interim construction period through a combination of the following types of spaces as listed below and shown on the temporary parking exhibit (see **Figure 2** and **Attachment V** for full-size plan):

- 119 proposed standard spaces
- 10 standard accessible spaces (*all existing to remain*)
- 10 proposed (non-PFM) aisle spaces served by valet assistance

Table 1
6862 Elm Street
Parking Summary (Code vs Demand)

Fairfax County Code Requirement			
Use	Amount (GSF)	Rate	Required (Spaces)
Office	109,600	3.0 Spaces/1,000 GSF	329
Office	109,600	3.0 Spaces/1,000 GSF & 20% CBC Reduction	264
Office (Occupied Space)	98,640	3.0 Spaces/1,000 GSF	237
Measured Parking Demand			
Use	Amount (GSF) (% Tenant Occupied)	Parking Demand Count (Day, Date, Peak Demand Time)	Peak Demand (Spaces)
Office	109,600 ±91.4% Occ.	Wed, 10/14/2009, 11:30 AM	178
Office	109,600 ±91.4% Occ.	Tue, 10/20/2009, 10:00 AM	182
Office	109,600 ±92.3% Occ.	Wed, 4/24/2013, 10:30 AM	176
Office	109,600 ±89.5% Occ.	Wed, 5/14/2014, 11:30 AM	174
Office	109,600 ±90.0% Occ.	Mon, 9/29/2014, 10:30 AM	168
Office	109,600 ±90.0% Occ.	Tue, 9/30/2014, 11:00 AM	168
Office	109,600 ±90.0% Occ.	Wed, 10/01/2014, 11:00 AM	172
Office	109,600 ±90.0% Occ.	Thurs, 10/02/2014, 11:00 AM	188
Office	109,600 ±90.0% Occ.	Fri, 10/03/2014, 11:00 AM	170
MAX: Thurs, 10/02/2014			188
MIN: Mon, 9/29 & Tue, 9/30/2014			168
AVERAGE			176
Existing On-Site Supply			411
Proposed On-Site Construction Period Supply			139
Proposed Off-Site Construction Period Supply			125
Total Construction Period Spaces			264



Plan provided by Bowman Consulting

 Wells + Associates, Inc.



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Off-Site Parking Spaces To Meet Code

Preferred Alternative A: To meet code requirements during construction, the subject site will lease a minimum of 125 off-site spaces using a combination of the following two (2) off-site locations:

Off-Site #1 - Primary Lot (90 spaces): The primary off-site parking lot is an existing surface parking lot controlled by Cityline located at 1766 Old Meadow Lane [2015 Tax Map 29-4 ((6)) 96 A] in the Providence Magisterial District. This off-site location is developed with a vacant office building / surface parking lot and is located approximately 2.4 miles (driving distance) from 6862 Elm Street. This off-site location corresponds to an approved parking layout that meets the parking provisions of the County's zoning ordinance as evidenced by the County approval of site plan SP-1049.

Off-Site #2 - Secondary Lot (35 spaces): The secondary off-site parking lot is another existing surface parking lot controlled by Cityline located at 7929 Westpark Drive [2015 Tax Map 29-4 ((7)) 9] in the Providence Magisterial District. This off-site location is developed with a vacant office building / surface parking lot and is located approximately 3.2 miles (driving distance) from 6862 Elm Street. This off-site location corresponds to an approved parking layout that meets the parking provisions of the County's zoning ordinance as evidenced by the County approval of site plan SP-1208.

Each off-site location is shown on **Figure 3** (Preferred Alternative A). Details of the lease agreements providing use of the spaces at each off-site lot is provided as Exhibit II within **Attachment I**. A letter is also included as part of Exhibit II of **Attachment I** that provides an acknowledgement from the building owner (Cityline) that both buildings are vacant where there are no tenants or uses that require parking.

Off-Site Parking Spaces To Meet Code Alternative B:

The construction at 6862 Elm Street is targeted to be complete before the end of 2017. The parking lot and vacant office building located at 1766 Old Meadow Lane is slated to be redeveloped with a new fire station that is

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scheduled to be delivered by 2020. If construction of the fire station begins prior to completion of the new parking garage on 6862 Elm Street, the Applicant will notify County staff and make arrangements with Cityline to either lease up to 90 off-site spaces at Cityline's private park and ride facility located proximate to the McLean Metro Station in the Providence Magisterial District. Use of the 35 spaces at 7929 Westpark Drive lot will either be continued or the full 125 required spaces will be leased at the private park and ride facility. This alternative off-site parking location (Alternative B) is summarized on **Figure 4**. As shown on **Figure 4**, the Alternative B off-site parking lot is located approximately 1.9 miles from the subject site. This off-site location corresponds to an approved parking layout that meets the parking provisions of the County's zoning ordinance as evidenced by the County approval of site plan 7788-MSP-002-2.

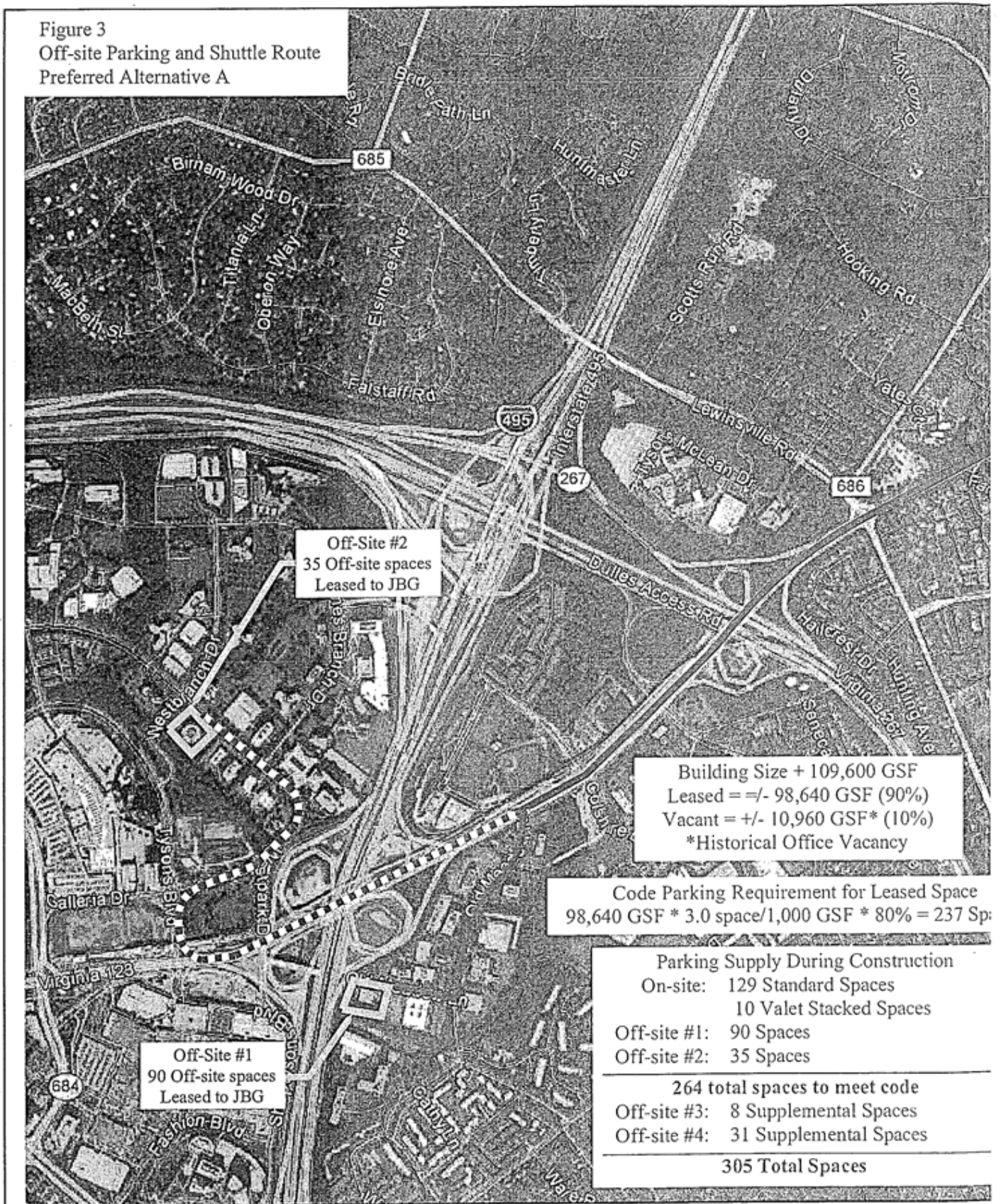
Off-Site Supplemental Parking Spaces To Serve Parking Demands:

Beyond the site's code requirement of 264 spaces, a total of 39 supplemental parking spaces will be provided by leasing office space from two (2) nearby office buildings located at 6888 Elm Street (8 spaces) and 6861 Elm Street (31 spaces). The leased office area at each nearby location would remain vacant. Each building is located within 500 feet of the subject site and access to the supplemental spaces will be provided by a valet parking service for the office users arriving at 6862 Elm Street. The location of each supplemental parking area is shown on Figure 3 and Figure 4 while being described below:

Off-Site #3 - 6888 Elm Street [Tax Map 30-2 ((5)) 7] - 8

spaces: The existing office building located at 6888 Elm Street is an approximate 16,512 SF office building whose minimum parking rate based on strict application of Article 11 of the County's zoning ordinance is 3.6 spaces per 1,000 SF. The Applicant is leasing approximately 2,117 SF with no plans to occupy that space in order to gain temporary use of 8 spaces at this nearby location. According to current code requirements, at 3.6 spaces per 1,000 SF, the 8 spaces leased at this location falls within the 8 spaces allotted by the code (see below):

Figure 3
Off-site Parking and Shuttle Route
Preferred Alternative A

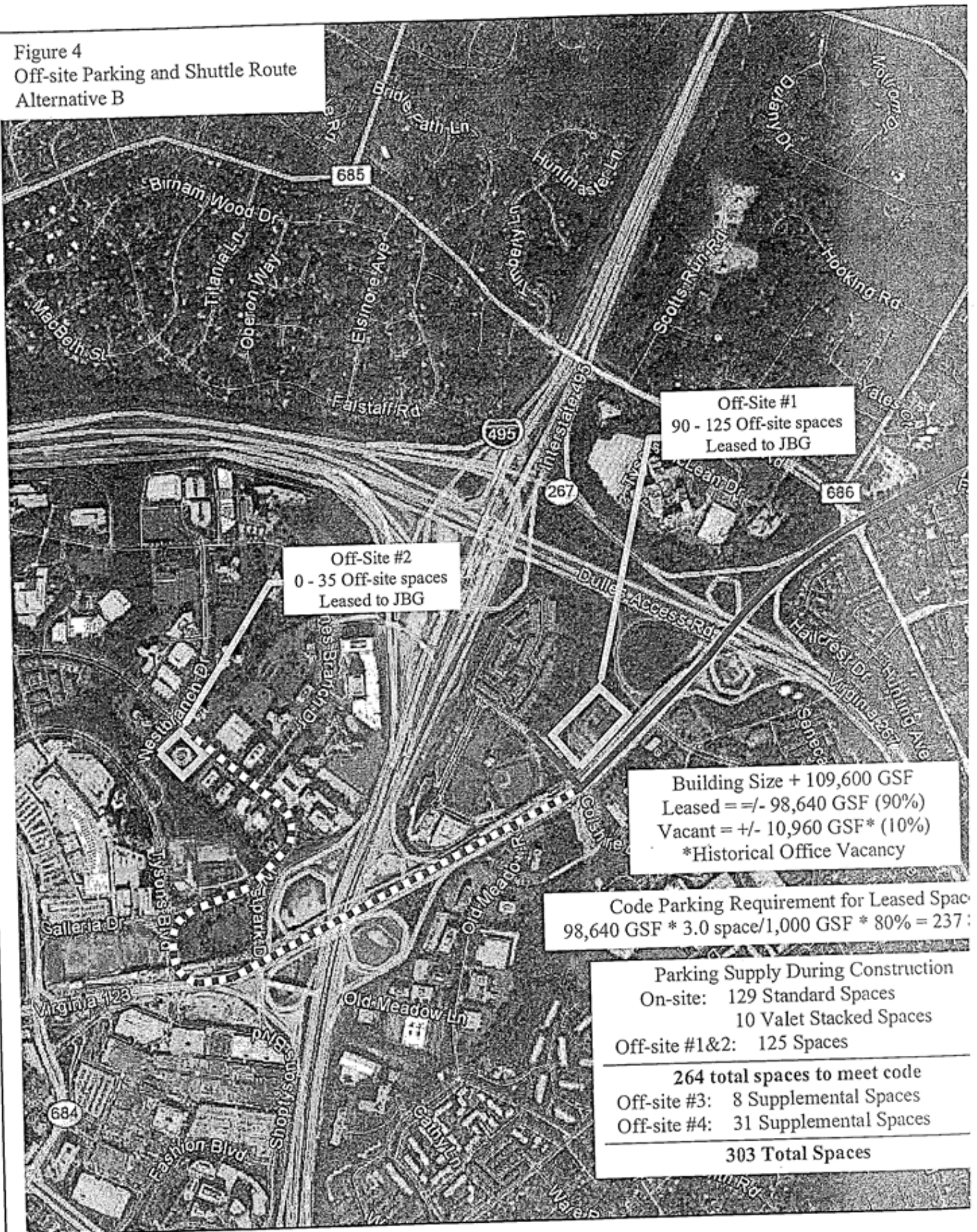


- Off-Site #1 1766 Old Meadow Lane (90 Standard Spaces)
- Off-Site #2 7929 Westpark Drive (35 Standard Spaces)
- Off-Site #3 6888 Elm Street (8 Supplemental Spaces)
- Off-Site #4 6861 Elm Street (31 Supplemental Spaces)

On Site

6862 Elm Street
(129 Standard Spaces, 10 Valet Stacked Spaces)

Figure 4
Off-site Parking and Shuttle Route
Alternative B

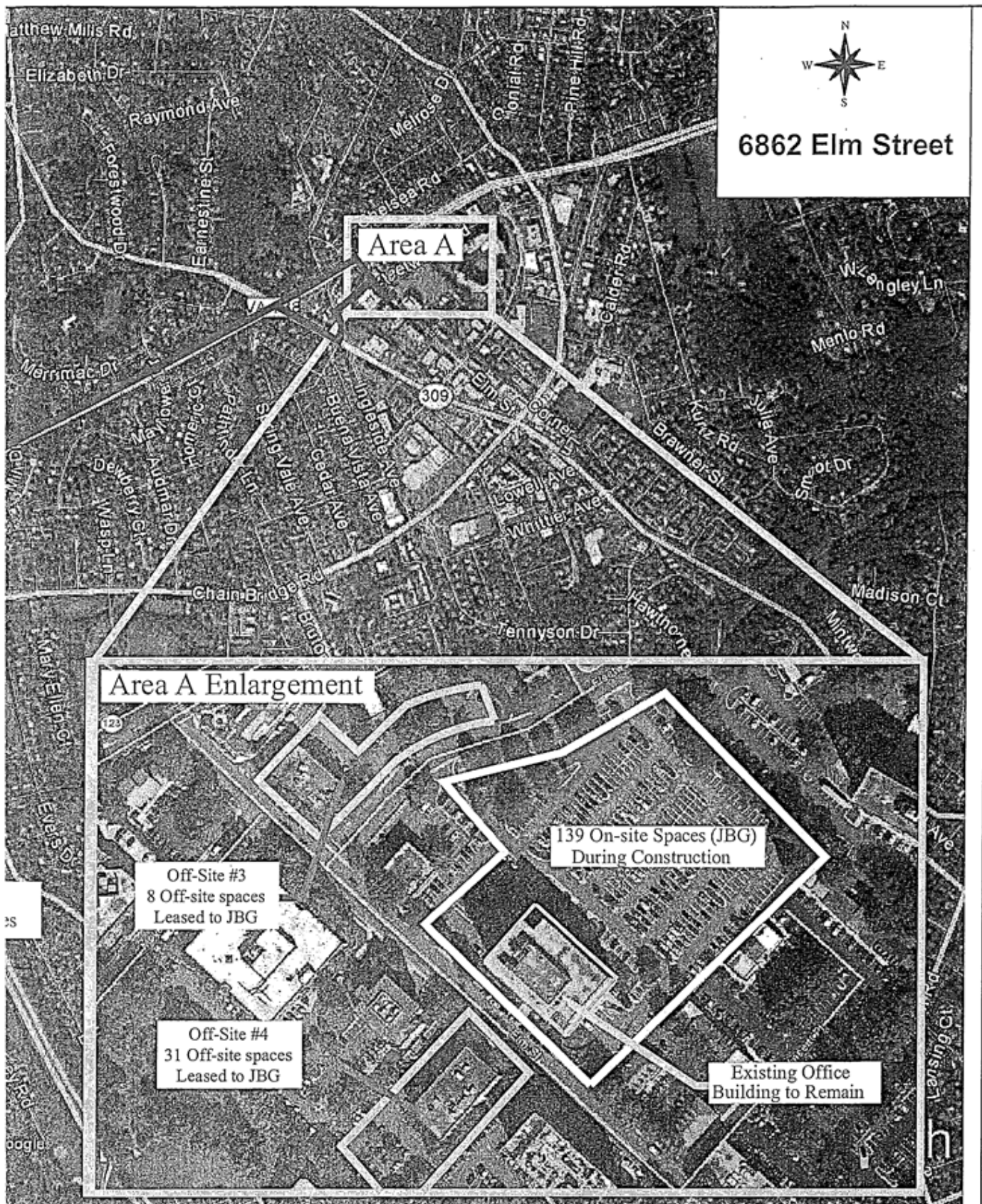


- Off-Site #1
- Off-Site #2
- Off-Site #3
- Off-Site #4

McLean Metro Station (90 - 125 Standard Spaces)
7929 Westpark Drive (0 - 35 Standard Spaces)
6888 Elm Street (8 Supplemental Spaces)
6861 Elm Street (31 Supplemental Spaces)

On Site

6862 Elm Street
(129 Standard Spaces, 10 Valet Stacked Spaces)



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Leased Office Area and Parking spaces:

2,117 SF with 8 spaces

Parking Allotted by Code:

2,117 SF x 3.6 spaces/1,000 SF = 8 spaces

Off-Site #4 - 6861 Elm Street [Tax Map 30-2 ((10)) 3] -

31 spaces: The existing office building located at 6861 Elm Street is an approximate 30,504 SF office building whose minimum parking rate based on strict application of Article 11 of the County's zoning ordinance is 3.6 spaces per 1,000 SF. The Applicant is leasing approximately 9,749 SF with no plans to occupy that space in order to gain temporary use of 31 spaces at this nearby location. According to current code requirements, at 3.6 spaces per 1,000 SF, the 31 spaces leased at this location falls within the 36 spaces allotted by the code (see below):

Leased Office Area and Parking spaces:

9,749 SF with 31 spaces

Parking Allotted by Code:

9,749 SF x 3.6 spaces/1,000 SF = 36 spaces

Lease agreements for each nearby office building are included in **Attachment VI**. Each lease provides for a 6-month renewal option, if necessary.

As a result of the supplemental parking spaces, an effective supply of 178 total spaces (139 on-site + 39 supplement = 178 spaces) will meet the average peak hour demand of 176 spaces discussed previously. For the few times when the average peak hour is exceeded, there will be sufficient off-site spaces available at 1766 Old Meadow Lane or 7929 Westpark Drive. Under the circumstance an office user chooses to use, or a specific demand requires those off-site lots, those users will be afforded an on demand taxi service to shuttle them to/from the off-site lot and the subject office building.

Shuttle Service:

An on-demand taxi/shuttle service will be available Monday thru Friday for pre-selected office tenants parking at the off-site parking lots (Off-Site #1/#2, or the Alternative B off-site parking lot, if applicable). Based on extensive parking occupancy measurements, the need for either facility is not anticipated, however, the taxi/shuttle

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service will be available for any office tenant requesting to park at either location.

Use of the off-site spaces will be based on pre-selected office tenants that would drive directly to the off-site lot as part of their trip to work. Through pre-arrangements made with the property manager, a scheduled taxi will meet and shuttle the office tenant between the off-site lot and the subject site.

Shuttle Travel Time:

Shuttle/taxi travel time trials were performed from 7 AM to 10 AM and 4 PM to 7 PM on Wednesday, April 8, 2015 between the subject office building (6852 Elm Street) and the proposed primary off-site #1 parking lot (1766 Old Meadow Lane). The following average time trials were measured:

- AM Period (7 AM – 10 AM)
 - 11 minutes from the off-site lot to the office building
 - 11 minutes from the office building to the off-site lot
- PM Period (4 PM – 7 PM)
 - 8 minutes from the off-site lot to the office building
 - 12 minutes from the office building to the off-site lot

The assumed shuttle/taxi route(s) are shown on **Figure 3** and the time trial results are summarized on **Table 2**. Under the circumstance the Alternative B site is required; its location is approximately 0.5 miles closer than 1766 Old Meadow Lane and would provide a shorter travel time. Under the circumstance the secondary off site lot #2 is required; its location is approximately 0.8 miles further than 1766 Old Meadow Lane and would provide a longer travel time. Again, it should be noted that the secondary lot is not anticipated to be needed, however, the taxi/shuttle service will be available for any office tenant requesting to park at the secondary off-site #2 location.

On-Site Valet Service

On-site parking attendants will assist office users to efficiently locate on-site parking spaces and/or valet park vehicles on-site or to the off-site "supplemental" areas (Off-Site #3/#4). A staff of approximately three (3) persons would serve the site from 7 AM to 7 PM. As office users arrive, their parking duration will be obtained and their vehicles will either be parked by attendants or directed by

Table 2
6862 Elm Street
Measured Shuttle/Taxi Travel Time Summary

	1766 Old Meadow Lane to 6852 Elm Street (Off-Site Lot to Office)			6852 Elm Street to 1766 Old Meadow Lane (Office to Off-Site Lot)		
	Start Time	Finish Time	Duration (min)	Start Time	Finish Time	Duration (min)
AM Period	7:00	7:13	0:13	7:00	7:10	0:10
	7:11	7:22	0:11	7:14	7:26	0:12
	7:34	7:46	0:12	7:24	7:33	0:09
	8:00	8:15	0:15	8:00	8:14	0:14
	8:14	8:29	0:15	8:16	8:27	0:11
	8:46	8:59	0:13	8:30	8:45	0:15
	9:00	9:10	0:10	9:00	9:12	0:12
	9:14	9:22	0:08	9:11	9:23	0:12
	9:40	9:51	0:11	9:30	9:39	0:09
	10:00	10:08	0:08	10:00	10:09	0:09
PM Period	4:00	4:08	0:08	4:00	4:13	0:13
	4:15	4:22	0:07	4:09	4:20	0:11
	4:40	4:50	0:10	4:25	4:37	0:12
	5:00	5:09	0:09	5:00	5:14	0:14
	5:15	5:22	0:07	5:10	5:22	0:12
	5:35	5:44	0:09	5:27	5:42	0:15
	6:00	6:10	0:10	6:00	6:14	0:14
	6:15	6:23	0:08	6:11	6:20	0:09
	6:30	6:38	0:08	6:30	6:43	0:13
	6:44	6:53	0:09	6:39	6:50	0:11
Average AM Period One-Way Trip			0:11	Average AM Period One-Way Trip		
Average PM Period One-Way Trip			0:08	Average PM Period One-Way Trip		

Note(s):

(1) Travel time measurements were collected on Wednesday, April 8, 2015.



those attendants to specific spaces on-site spaces according to their stay. Those office users with all day or long term durations on-site will be valet parked to the supplemental spaces subject to availability. Any vehicle parked by a parking attendant after the valet service ends will have their car relocated to an on-site standard space with keys returned to the appropriate owners. All vehicles parked by parking attendants will have hang tags differentiating them from other vehicles. The overall parking system will be managed as to prevent vehicles from queuing off-site into the public street system. A staging area for the parking attendants is shown on the temporary parking exhibit (see **Figure 2** and **Attachment V** for full-size plan).

Accessible Parking

All the accessible parking spaces that currently serve the subject office building at 6862 Elm Street will remain on-site as currently provided. All accessible users at 6862 Elm Street would continue to have access to those spaces; therefore the entire site's accessible parking requirement will be accommodated on-site. Additional details related to the on-site accessible spaces are provided on the temporary parking exhibit (see **Figure 2** and **Attachment V** for full-size plan). Further, each off-site parking location designated to meet subject site's code parking requirements conform to an approved layout subject to their respective site plan approvals.

Construction Parking

The Applicant will work with on-site construction firm to assist in managing the parking demand for their construction workers. As needed, the off-site parking areas (Off-Site #1/#2, or the Alternative B off-site parking lot, if applicable) provided to meet code for 6862 Elm Street will more than accommodate parking demand's for construction workers. Shuttles will be provided to coordinate the shift changes to/from the off-site parking areas and/or the nearby McLean metrorail station. The Applicant and construction firm will designate points of contact in the case parking for the construction workers become an issue for the neighboring community.

Basis for Request:

According to Article 11-102-1, the following elements will ensure the operation of such a taxi/shuttle and valet service and there will not be any adverse impacts on the site of the parking spaces or the adjacent area.

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- During the interim construction period, the subject office building will provide approximately 139 on-site parking spaces and a minimum of 125 off-site parking spaces to meet the County's minimum code parking requirement of 264 spaces. The Applicant will offer its pre-selected office tenants that use the off-site parking lot an on demand taxi/shuttle service to shuttle employees between the off-site lot and subject office building.
- Based on comprehensive parking demand studies, the Applicant will lease 39 additional supplemental parking spaces within 500 feet of the subject office building. These spaces will not be counted towards meeting code parking requirements, but will provide convenient parking to serve current parking demands. These spaces will be directly served by an on-site valet service.
- There will be 178 total spaces provided between the 139 on-site spaces and 39 nearby supplemental spaces to serve the site's average peak hour parking demands. For the few times when the average peak hour is exceeded, there will be sufficient off-site spaces available at 1766 Old Meadow Lane or 7929 Westpark Drive.
- The Applicant will provide on-site parking attendants to efficiently direct, manage, and/or valet arriving vehicles on-site or valet park vehicles to the supplemental spaces.
- The Applicant is providing County staff the lease agreements for the off-site parking lots (Preferred Alternative A off-site lots #1 and #2) and supplemental parking areas (6861 Elm Street and 6888 Elm Street) with this Parking Plan submission (see **Attachment I** and **Attachment VI**).
- The off-site parking that is being requested will be limited to no more than 24 months from commencement of construction. The applicant will inform the County if the construction period will exceed 24 months and if necessary, request a 6-month extension of the off-site parking request without the need for an additional Board action.
- Public on-street parking spaces are available along roadways that front the office building's property on its south side (Elm Street) and west side (Fleetwood Road) to serve any short term parking overflow conditions.



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Code Requirement Request:

The full code parking requirement is being provided for the existing ±109,600 office building through a combination of off-site and on-site spaces. A portion of the on-site spaces will be “stacked” spaces within the parking aisles that do not impact emergency service circulation. It is hereby requested, that these “stacked” spaces be permitted to meet minimum code parking requirements for the interim construction period.

Off-Site Parking Request:

The Applicant is hereby requesting the use of 125 off-site parking spaces to be located at 1766 Old Meadow Lane (90 spaces) and 7929 Westpark Drive (35 spaces) to meet code parking requirements for an interim 24-month construction period. If the subject request was approved, there will not be any adverse impacts on the site or the adjacent area. During the interim construction period, the site will provide 178 convenient spaces to meet the site’s average peak hour parking demand of 176 spaces through:

- 139 on-site parking spaces and
- 39 nearby supplemental parking spaces located within 500 feet of the subject office building

For the few times when the average peak hour is exceeded, there will be sufficient off-site spaces available at 1766 Old Meadow Lane or 7929 Westpark Drive. An on-demand shuttle/taxi service will connect the site to the 125 off-site parking spaces over a 24-month construction period.

If required, a provision is requested for an extension period up to six (6) months without the need for an additional Board action on this item. In addition, for the purpose of maximizing and efficiently managing the on-site parking supply, a request to use non-PFM (“stacked”) spaces in the form of 10 proposed aisle spaces that will be served by valet assistance.

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Figure 1	- Site Location
Figure 2	- Interim Parking Exhibit Reduction
Figure 3	- Off Site Parking Preferred Alternative A
Figure 4	- Off Site Parking Alternative B
Table 1	- Parking Occupancy Measurements
Table 2	- Shuttle Time Trial Results
Attachment I	- Responses to comments dated June 12, 2015 (with copies of leases for Off-Site #1 & #2)
Attachment II	- Responses to comments dated October 9, 2015
Attachment III	- Board Approved Proffers dated June 27, 2014
Attachment IV	- Excerpts from Article 11 of Fairfax County’s Zoning Ordinance
Attachment V	- Full Size copy of Interim Parking Exhibit
Attachment VI	- Copies of Leases with 6888 Elm Street and 6861 Elm Street

ACTION - 2

Calendar Year 2016 Forest Pest Management Program

ISSUE:

Board approval of the Calendar Year 2016 Forest Pest Management Program.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors direct staff to take the following actions concerning Fairfax County's Calendar Year 2016 Forest Pest Management Program:

Gypsy Moth

- a. Continue a monitoring program for life stages of the gypsy moth in all areas of the County.
- b. Continue to conduct an outreach program targeting the tree care industry and residents of the County in monitoring of gypsy moth populations.

Fall Cankerworm

- a. Continue a monitoring program for all life stages of the fall cankerworm in the County.
- b. Continue fall cankerworm spring defoliation surveys.
- c. Continue community outreach to enlist community participation to assist in monitoring cankerworm populations.

Emerald Ash Borer (EAB)

- a. Continue to inventory the County for ash resources as well as investigate new control methods for EAB, including the use of biological control.

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- b. Continue a control program for this pest on high value ash trees on Fairfax County and Northern Virginia Regional Park Authority owned properties. This program will be limited to approximately 50 trees depending on surveys conducted this spring. Staff plans to use the trunk injected pesticide Tree-Age® (see Attachment I).
- c. Monitor ash trees that were treated as part of the previous year's program to determine the effectiveness of the control.
- d. Continue to implement an extensive outreach program targeting the tree care industry and residents of the County on emerald ash borer control methods.

Thousand Canker Disease of Walnut

- a. Continue to explore the potential impact of this disease that is threatening black walnut (*Juglans nigra*).
- b. Continue to provide outreach opportunities for residents on methods for protecting black walnut trees on their property.
- c. Investigate new control methods for the walnut twig beetle, including the use of biological control.

Sudden Oak Death Disease (SOD)

- a. Continue to conduct a monitoring program in order to determine if SOD is present in Fairfax County.
- b. Continue to develop a management plan in the event SOD is discovered within Fairfax County.

Hemlock Woolly Adelgid (HWA)

- a. Continue a control program for this pest in naturally occurring stands of eastern hemlock on public lands. Staff has selected two sites in the Dranesville and Springfield districts and plan to provide control on approximately 25 trees at each site (Attachment III). Staff plans to use the trunk injected pesticide TreeAzin® (Attachment II).

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March 1, 2016

- b. Monitor hemlock trees that were treated as part of the previous year's program to determine the effectiveness of control.
- c. Establish partnerships with other local and regional authorities to provide treatment for HWA.

Asian Longhorned Beetle (ALB)

- a. Continue to update the long term management plan for the ALB (*Anoplophora glabripennis*).
- b. Continue to conduct an outreach program in order to educate the public and private industry on the potential impacts of this pest.
- c. Continue the survey of ALB in areas that have been identified as being at high risk for ALB introduction.

Spotted Lanternfly

- a. Petition VDACS to add spotted lanternfly (*Lycorma delicatula*) to the list of insects and diseases that may be monitored and controlled by service districts in the Commonwealth of Virginia. (see Attachment III)

TIMING:

Board action is requested on March 1, 2016. The timing of this item corresponds with the beginning of program monitoring activities.

BACKGROUND:

The Code of the County of Fairfax, Virginia requires the submission of the annual Integrated Pest Management Program proposal for Board of Supervisors' approval.

Gypsy Moth

Based on egg mass surveys conducted during the fall of 2015, staff has determined that gypsy moth populations have remained low. The Forest Pest Program found no infestations of gypsy moth that warrant treatment in calendar year 2016.

Gypsy moth populations, like all insect populations, are cyclical in nature. Periods of high pest levels are followed by periods of low pest levels. There are many factors which influence the timing and duration of pest outbreaks and declines. Staff believes that the current low gypsy moth pest levels are the result of effective treatment programs in the past and abundant rainfall during the spring of recent years. Gypsy moth caterpillars are very susceptible to a moisture dependent fungal disease called

Entomophaga maimaiga. This disease is naturally occurring in the environment and can potentially have a dramatic effect on gypsy moth populations if there is sufficient rainfall during the spring when caterpillars are small. It should be noted that all areas that have gypsy moth in the United States have experienced similar population decreases. Fairfax County experienced similar population crashes due to *Entomophaga maimaiga* in the mid 1990's and in 2004. Each of these declines were followed by outbreaks in following years.

Attachment IV portrays the cumulative gypsy moth defoliation in Virginia from 1984 to 2009. This map shows that Fairfax County's gypsy moth suppression program continues to meet its program goals by keeping gypsy moth populations below defoliation levels.

Fall Cankerworm

Fall cankerworm populations were monitored this winter in those areas of the County that have experienced outbreaks in the past, as well as those areas identified by staff as having significant cankerworm activity last spring. The method used for this monitoring for fall cankerworm is a United States Department of Agriculture (USDA), Forest Service recommended technique that involves trapping female moths as they emerge in the winter. Results of monitoring indicate that fall cankerworm populations have declined in the Mount Vernon, Lee and Mason magisterial districts. Staff has identified no areas to date that will require treatment in 2016.

Over the last two years staff received input from civic groups in regard to the strategies that are used to implement this control program. Staff has worked diligently to explore ways to refine and improve this program so that these concerns can be addressed.

- a. **Larval Study** – The purpose of this study was to corroborate the results of fall cankerworm sticky band surveys in the fall and bolster overall monitoring efforts. Forest Pest staff utilized a technique developed by researchers at the North Carolina State University which related larval density to predict defoliation. This method involved using trays of soapy water to monitor for fall cankerworm larvae. In the spring of 2015, greenhouse flat trays filled with soapy water were placed under cankerworm host trees. The soapy tray traps were used to count the number of caterpillars ballooning during peak emergence and/or before pupation. These data will be used to predict defoliation in the following year. The initial survey point was randomly generated using ArcGIS to focus within parks which corresponded to areas of either high fall cankerworm banding counts (>70) or low fall cankerworm banding counts (<30). The scope of the project was small and its goal was to determine if this would be a feasible monitoring effort for the future. Future efforts may continue with guidance from University researchers to further develop the technique.

- b. **Parasite Study** - Fall cankerworms have natural predators that can be influential in their population levels. One explanation for outbreak populations in these areas is a lack of predator controls like *Telenomus alsophilae*, an egg parasitoid. The purpose of this survey was to determine the population level of *T. alsophilae* in Fairfax County.

Collection sites were located in cankerworm banding sites that amounted to 100 or more female moths over the course of the monitoring season. Staff collected eggs from survey bands that had eggs on them as well as from small branches of trees located near the bands. Cankerworm eggs were reared indoors and the number of viable eggs were counted to determine the level of parasitism.

The data acquired from this survey should prove useful in obtaining a better understanding of overall cankerworm population dynamics in Fairfax County as well as locating areas of concern to be targeted in the ensuing year's fall cankerworm banding survey. The results of this study, in conjunction with sticky banding methods, should provide a larger picture of a potentially declining cankerworm population.

- c. **Citizen Feedback Survey** – At the conclusion of the 2015 treatment, staff conducted a survey to gauge how the public felt about the limited fall cankerworm ground suppression program. All residents in the treatment areas (130) were mailed a questionnaire. Attachment V shows the results of this survey. The majority of those that replied were very satisfied or satisfied. The lone “very dissatisfied” response was the result of foot traffic which disturbed a flower bed.
- d. **Fall Cankerworm Community Banding Campaign** - Staff implemented a fall cankerworm community banding program in early December, 2014. The goal for the pilot program was to mobilize and engage residents that were most affected by fall cankerworm, focusing on the Mount Vernon District. Efforts by volunteers would then be used to assist in Forest Pest Management's annual monitoring. Homeowner associations (HOA) that fell within the historical areas for high cankerworm populations were targeted for participation. For any HOA that requested to participate, “kits” were provided based on the size of the organization.

Each kit included a roll of tar paper banding material (approximately 15 feet in length), two cans of aerosol Tanglefoot® glue, gloves, instructions and a postcard to send back to UFMD with the data recorded from their sticky bands. Each kit was estimated to monitor 4-6 trees in the ideal diameter of 6-8 inches.

Out of over 100 total kits that were disseminated, a total of nine postcards were received by UFMD following the pilot program. The greatest return rate successes were for groups that attended UFMD's live demonstration and those which were spearheaded by Master Gardeners. In future years, a more robust outreach program should accompany the kits, including active involvement of Master Gardeners and Tree Stewards. Many residents assumed that the kits would provide good preventative control for fall cankerworm defoliation. As a result, most residents did not make the connection to record and reply with the number of females observed on the bands. This project was not implemented during the winter of 2015-2016 because the manufacturer of the sticky material discontinued the product. Staff anticipates that this product will be manufactured again in 2016 and will continue with this project as the material becomes available.

- e. **Defoliation Survey** – In 2015 staff conducted an extensive defoliation survey to measure the damage caused by fall cankerworm. The purpose of this survey was to determine those areas of Fairfax County where fall cankerworm larvae have impacted the County's urban forest resources through foliar feeding and to quantify this feeding damage as a percentage of canopy defoliated. The data acquired from this survey should prove useful in gauging a better understanding of overall cankerworm population dynamics in Fairfax County as well as locating areas of concern to be targeted in the ensuing year's fall cankerworm banding survey.

The defoliation survey for fall cankerworm consisted of two phases. The first phase of the survey consisted of a gridded ground survey (see Attachment VI). A 1,500 foot grid was established in the known area of fall cankerworm activity in the southeastern portion of the County. Defoliation was quantified at each grid point. Nearly 1,000 ground based surveys were conducted. The second phase of the defoliation survey was an aerial survey. The aerial survey was conducted to identify large areas of defoliation, as well as target large wooded tracts, such as those found on Mason Neck and in Huntley Meadows where a ground survey is impractical. The results of this survey indicated that there was no heavy defoliation from fall cankerworm in 2015 but, moderate feeding was apparent. Staff will target these areas during the winter of 2015/2016.

- f. **Fall Cankerworm Taskforce** – Due to the growing concern over fall cankerworm and the lack of science regarding cankerworm population dynamics and population monitoring, a multi-state cankerworm task force was established in the spring of 2015. The group, consisting of local and state agencies as well as representation from universities, hopes to establish standardized monitoring and treatment strategies for the future control and management of fall cankerworm. One of the outcomes of this taskforce has been a cooperative research project with Virginia Commonwealth University

(VCU) and Fairfax County. VCU analyzed Fairfax County's cankerworm data to determine appropriate threshold counts as to when control of this insect may be needed in suburban/urban areas. To date, previous Forest Service research focused on large contiguous forested tracts. Researchers at VCU determined that a trap count of 200 female moths per band is more appropriate in declining populations than the previous threshold level of 90 female moths. Ongoing research will help determine appropriate female moth threshold levels for all outbreak phases of fall cankerworm.

Staff used band counts, 2015 defoliation surveys, and parasite surveys in determining whether control for fall cankerworm was warranted in the spring of 2016. Staff plan to continue these activities in 2016.

Emerald Ash Borer

EAB was first identified in Fairfax County in 2003 at a school site in the Wolftrap area of Fairfax County. Due to the extremely destructive nature of this pest, VDACS and the United States Department of Agriculture, Animal Plant Health Inspection Service (APHIS) ordered all ash trees within a one-half mile radius of the introduction site be removed and destroyed. Staff of the Forest Pest Program carried out this project during the spring of 2004 and immediately set in place a monitoring program for EAB.

Although staff feels that this eradication effort was effective, other infestations were found in other parts of the County in 2008. As a result of these detections and others in the Commonwealth, a quarantine was established that included the entire state of Virginia.

All interstate movement of infested ash wood and wood products from Virginia is now regulated, including firewood of all hardwood species, nursery stock, green lumber, waste, compost and chips from ash trees. The Virginia Department of Agriculture and Consumer Services is responsible for enforcement of the state quarantine within the Commonwealth. Violations of the state quarantine constitute a Class 1 misdemeanor. Violations of the federal quarantine governing interstate movement of regulated articles will be enforced by USDA-APHIS and are subject to federal penalties.

This insect has the potential to eliminate all ash trees in Fairfax County and will have huge economic impacts to homeowners, parks and private business. Researchers have developed control options for emerald ash borer and staff plans to implement a modest control program on ash trees on public lands within Fairfax County.

Staff has begun, and will continue to inventory County owned ash trees. Staff will select ash trees for control if they are of historic or aesthetic value. Once a tree has been identified, staff will coordinate with the agency that is responsible for the maintenance of the tree to determine if it is a candidate for the control program.

EAB control will be accomplished using tree injection techniques that deliver the insecticide into the tree itself. Once injected, the insecticide is transported throughout

the tree and will provide control for up to two years. The insecticide that will be used is a material that contains emamectin benzoate and is sold by the trade name TreeAge® (Attachment II). Staff has the ability to conduct this control activity, therefore treatment will be cost effective, as well as biologically effective.

Hemlock Woolly Adelgid

Staff continues to explore various control options for HWA. Hemlock Woolly Adelgid is an insect that attacks and kills eastern hemlock (*Tsuga canadensis*) trees (Attachment VII). Native eastern hemlock is relatively rare in Fairfax County. The rarity of this species and the natural beauty that they impart make them worthy of protection. Staff will continue to inventory the County in order to identify the natural stands of eastern hemlock. For this year's program, staff has identified two native stands in Dranesville and Springfield districts for control.

Trunk injection of the pesticide TreeAzin® is an effective method providing control to the target trees. Once injected, the insecticide is transported throughout the tree and will provide control for up to five years. The insecticide that will be used is a material that contains azadirachtin and is sold by the trade name TreeAzin® (Attachment II). Staff has the ability to conduct this control activity, therefore treatment will be cost effective, as well as biologically effective.

In addition to chemical control, staff has released parasites of HWA in hopes of providing limited control. This effort was conducted in cooperation with local universities.

Thousand Cankers Disease of Black Walnut

Black walnut (*Juglans nigra*) is a native tree to Fairfax County. Foresters have observed a disease called Thousand Cankers Disease (TCD) that affects black walnut trees in the western United States in recent years, and have identified a beetle that spreads the disease. In the summer of 2010, black walnut trees were observed to be declining near Knoxville, Tennessee. Foresters confirmed that the beetle and disease had been artificially introduced to the eastern United States (Attachment VIII).

Thousand Cankers Disease was found in the vicinity of Richmond, VA in the summer of 2011 and, as a result, VDACS established a quarantine to curtail the movement of walnut material in hopes of slowing the spread of this disease. As a result of monitoring by staff in 2012 it was determined that this disease is present in Fairfax County. Staff recommends that resources, in the form of an outreach program, continue to be developed and implemented. Key targets of the outreach effort will include homeowners and private tree care companies.

Sudden Oak Death

In 1995, a disease was found to be killing oak trees in California. Scientists determined that the disease was caused by a fungus called *Phytophthora ramorum* or Sudden Oak Death (SOD). This disease has caused wide scale tree mortality in the western United States (Attachment IX). Fortunately, SOD has only been found in a number of isolated

locations in the eastern United States and officials feel that these infestations have been contained.

Like other invasive insects and diseases, diligent monitoring is critical in slowing the spread of SOD. Recent testing methods have been developed that are simple and cost effective and staff will continue to monitor for this disease following VDACS recommended monitoring techniques. Staff will continue to implement an outreach component that will educate private and public groups on this disease and its control.

Asian Longhorned Beetle (ALB)

Asian Longhorned Beetle (*Anoplophora glabripennis*) is currently one of the biggest threats facing the forest ecosystems of Fairfax County. This beetle is an invasive insect that is thought to have been brought to the United States via wood packing material used in shipping (Attachment X). Since the mid 1990's, ALB infestations in Chicago, Illinois, New York City, New Jersey and near Boston, Massachusetts have been discovered. Asian Longhorned Beetle will infest many hardwood species. According to recent analysis conducted by Fairfax County Urban Forest Management Division, approximately 4.2 million trees in Fairfax County are susceptible to this pest. Asian longhorned beetle larvae will infest and kill trees by boring into the heartwood of the tree and disrupting its nutrient flow causing eventual tree death.

Wood boring beetles such as EAB and ALB are difficult to detect. Most ALB infestations in the United States have been established for a number of years before being detected. This fact makes eradication particularly difficult since they have had time to spread well beyond the initial site of introduction. Asian longhorned beetle has the potential to have drastic economic and social impacts should it be introduced in Fairfax County. It is critical that private and public tree care experts remain vigilant in monitoring for this pest. According to the USDA, Forest Service, most of the infestations found in the United States have been identified by tree care professionals and informed homeowners.

Spotted Lanternfly

Spotted Lanternfly (*Lycorma delicatula*) is an insect that is native to Asia and was found in suburban Philadelphia, PA in 2014. This insect feeds on a broad range of host trees including many found in Fairfax County (see Attachment III). Staff proposes adding spotted lanternfly to the list of insects that may be controlled by service district so that monitoring and outreach may be conducted. This insect is not known to be in Fairfax County but will have significant financial impact should it become established here.

It should be noted that there are many invasive forest insect pests and diseases that are potential threats to the forests of Fairfax County. Staff will continue to keep informed of developing invasive forest pest issues. Past experience with new insects and diseases has proven that diligent monitoring, detection and prevention are much more cost effective and more readily accepted by the public as compared to the use of insecticides.

Board Agenda Item
March 1, 2016

FISCAL IMPACT:

Currently, the Forest Pest Program is funded through the Special Service District for the Control of Infestations that May Carry a Disease that is Dangerous to Humans, Gypsy Moth, Fall Cankerworm, and Certain Identified Pests. The Forest Pest Program will not be conducting any aerial treatment in 2016. Funding for the program will be used for monitoring pests, public education and outreach, treatment of ash and hemlock trees and to provide for administrative support for the program. The total amount budgeted for FY 2016 is sufficient for this program.

ENCLOSED DOCUMENTS:

Attachment I: TreeAge® Label

Attachment II: TreeAzin® Label

Attachment III: United States Forest Service Pest Alert, Spotted Lanterfly

Attachment IV: Gypsy Moth Cumulative Defoliation in Virginia (1984-2009)

Attachment V: Fall Cankerworm Citizen Feedback Survey

Attachment VI: 2015 Fall Cankerworm Defoliation Survey

Attachment VII: United States Forest Service Pest Alert, Hemlock Woolly Adelgid

Attachment VIII: United States Forest Service Pest Alert, Thousand Cankers Disease

Attachment IX: United States Forest Service Pest Alert, Sudden Oak Death

Attachment X: United States Forest Service Pest Alert, Asian Longhorned Beetle

STAFF:

Robert A. Stalzer, Deputy County Executive

James A. Patteson, Director, Department of Public Works and Environmental Services (DPWES)

Randy Bartlett, Deputy Director, Stormwater and Wastewater Management Divisions, DPWES

RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY TO HUMANS FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

TREE-äge**GROUP 6 INSECTICIDE**

Injected insecticide for two-year control of listed arthropod pests in deciduous, coniferous, and palm trees

ACTIVE INGREDIENT:Emamectin Benzoate¹.....4.0%**OTHER INGREDIENTS**.....96.0%**TOTAL**.....100.0%CAS No. 55569-91-8 ¹Contains 0.36 lb emamectin per gallon.

EPA Reg. No. 100-1309-74578 Est. 74578-MA-001

**KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use on label in booklet.

SCPL ABJ 1309A-L1D 0314, Material #4036736

Net Contents: 1 Quart, 2 Fluid Ounces (1 liter)

Product ID: 040-4100

Manufactured for Arborjet, Inc. 99 Blueberry Hill Road, Woburn, MA 01801

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING/AVISO: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal), Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-255-3924**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (Category C) such as barrier laminate; butyl rubber \geq 14 mils; nitrile rubber \geq 14 mils; or neoprene rubber \geq 14 mils.
- Shoes and socks
- Protective eyewear

ENVIRONMENTAL HAZARDS

This product is highly toxic to fish, mammals and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. This product is highly toxic to bees exposed to direct treatment or residues on blooming trees.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

**CONDITIONS OF SALE AND LIMITATION
OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ARBORJET, Inc. or Seller.

To the extent permitted by applicable law, Buyer and User agree to hold ARBORJET and Seller harmless for any claims relating to such factors.

ARBORJET warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or ARBORJET, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, ARBORJET MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall ARBORJET be liable for any incidental, consequential or special damages resulting from the use or handling of this product.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ARBORJET AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ARBORJET OR SELLER, THE REPLACEMENT OF THE PRODUCT.

ARBORJET and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of ARBORJET.

DIRECTIONS FOR USE RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

IMPORTANT: Read entire label before using this product. Failure to follow label instructions may result in poor control or tree injury. Failure to follow label directions may cause injury to people, animals and environment.

APPLICATION TO TREES

TREE-äge is for control of mature and immature arthropod pests of deciduous, coniferous, and palm trees including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards, and forested sites (in private, municipal, state, tribal and national areas). TREE-äge contains the active ingredient emamectin benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

USE DIRECTIONS

TREE-äge is designed for use with tree injection devices that meet the label and dose requirements (for example, the Arborjet Tree Injection Systems) for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

Dosages are based on the Diameter (in inches) of the tree at Breast Height (DBH¹). Tree DBH is the outside bark diameter at breast height. Breast height is defined as 4.5 feet (1.37m) above the ground on the uphill side of the tree. For the purposes of determining breast height, the ground includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

The diameter is determined by measuring the circumference of the tree at DBH¹, and dividing the circumference (in inches) by three (3). To determine DBH¹ for multi-stemmed woody ornamentals, measure the DBH¹ for each stem or branch and add together for the total DBH¹ per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem within 12" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas or areas with decay. Select injection sites associated with stem growth.

Number of Injection Sites: Work around the tree, spacing injection sites approximately every 4 to 8 inches of tree's circumference.

Drill Depth: Drill through the bark then 5/8" to 1-5/8" (hardwoods) or 1-5/8" to 2" (conifers) into the sapwood with the appropriate sized drill bit. Use clean, sharp drill bits. Brad point bits are recommended. Precautions should be taken to avoid diseased areas and transferring infected tissues to other injection sites.

APPLICATION TO TREES (continued)

Resinous Conifers

In resinous conifers, such as pine and spruce, start the injection immediately after drilling into the sapwood. A prolonged delay may reduce uptake on account of resin flow into opening.

WHEN TO TREAT

TREE-äge contains the active ingredient emamectin benzoate which is a glycoside insecticide. It is active against immature and adult stages of arthropods. The primary route of toxicity is through ingestion.

ENVIRONMENTAL CONDITIONS: Uptake of TREE-äge is dependent upon the tree's transpiration. Transpiration is dependent on a number of abiotic and biotic factors, such as soil moisture, soil and ambient temperature, and time of day. For uptake, apply when soil is moist, soil temperatures are above 45°F, ambient temperatures are between 40° to 90°F, and during the 24 hour period when transpiration is greatest, typically before 2:00 PM. Applications to drought or heat-stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Avoid treating trees that are moisture stressed or suffering from herbicide damage.

MONITOR TREE HEALTH and PEST INFESTATIONS: Effective injection treatment is favored by a full canopy (i.e., leaves) and healthy vascular system. Once these tissues are compromised by arthropod damage (larval galleries, defoliation, leaf mining, etc.) an effective and uniform application of TREE-äge may be difficult to achieve and subsequent control may be poor. Optimally, treatment should be made preventively at least 2 to 3 weeks before arthropods historically infest the host tree. As a result of systemic movement and longevity of TREE-äge in trees, this interval may be extended much earlier to 6 months should tree dormancy, adverse weather, management, asynchronous life cycle of pests, etc., allow earlier application timing.

TREE-äge may also be effective as a remedial treatment against some pests, such as those with slower development or if multiple life stages are susceptible to TREE-äge. Pests that attack the stem and branches such as bark beetles and clearwing borers may disrupt vascular tissue resulting in poor distribution in an infested tree. This includes the initial larval stages of pests, such as bark beetles and clearwing borers, that attack the stem and branches, which may disrupt vascular tissue resulting in poor distribution of the product in an infested tree. Best results are achieved if applications are made prior to any vascular disruption to the tree. However, control may be achieved if larvae come into contact or feed on TREE-äge treated tissues.

GROUP 6 INSECTICIDE

RESISTANCE MANAGEMENT

TREE-äge Insecticide is a Group 6 insecticide (contains the active ingredient emamectin benzoate).

Because of the inherent risks of resistance development to any product, it is strongly advised that TREE-äge be used in a sound resistance management program. Treatment may not be effective against labeled pests if insect or mite tolerant strains develop. When applying to plants that are hosts of labeled pests and these labeled pests have multiple generations per year, use resistance management practices.

USE

Use as formulated or dilute with equivalent 1 to 3 volumes of water to apply.

Tree Diameter (DBH) (Inches)	Low ml product/tree	Medium ml product/tree	High ml product/tree
4 to 6	15	25	50
7 to 9	20	40	80
10 to 12	30	55	110
13 to 15	35	70	140
16 to 18	42	85	170
19 to 21	50	100	200
22 to 24	–	115	230
25 to 27	–	130	260
28 to 30	–	145	290
31 to 33	–	160	320
34 to 36	–	175	350
37 to 39	–	190	380
40 to 42	–	205	410
43 to 45	–	220	440
46 to 48	–	235	470
49 to 51	–	250	500
52 to 54	–	265	530
55 to 57	–	280	560
58 to 60	–	295	590
61 to 63	–	310	620
64 to 66	–	325	650
67 to 69	–	340	680
70 to 72	–	355	710

The use of low, medium, and high rates are based on the professional judgment of the applicator as to what constitutes a low, medium or high infestation.

Higher rates tend to provide longer residual and control of more difficult to control insects. See **Target Pest** for additional information in choosing the amount of product to apply.

Applications in Trees			
Tree Tissue	Target Pest	Application Rate ¹	Comments
Seed and Cone	Pine Coneworm (<i>Doryctia</i> spp.), Pine Cone Seed Bug (suppression of <i>Leptoglossus</i> and <i>Tetyra</i> spp in the year of treatment)	Medium to High	For optimal control apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Tent Caterpillars (including Eastern, Forest, Pacific, and Western) Western Spruce Budworm Winter Moth	Low to Medium	Apply at least 2-3 weeks before the pest has historically been present. Consult with local extension agent for when this will occur in your area.
	Bagworm Fall Webworm Gypsy Moth Mimosa Webworm Oak Worm Tussock Moth Leafminers (including Lepidoptera Coleoptera Hymenoptera) Honeylocust Plant Bug Pine Needle Scale Red Palm Mite Sawfly (including Elm, Pine)	Low to High	
Shoot, Stem, Trunk and Branch	Clearwing Borers (including Ash, and Sequoia Pine Pitch Tube Moth)	Low to Medium	For control apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged. If vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.
	Flat-headed Borers (including adult and larvae of Emerald Ash Borer)	Low to High	
	Roundheaded Borers (excluding Asian longhorn Borer) Scolytids (bark beetles) Ips Engraver Beetles Mountain Pine Beetle Southern Pine Beetle Spruce Beetle Western Pine Beetle Pinewood Nematode	Medium to High	

¹Use medium to high rates for remedial and longer residual control.

COMPATIBILITY

Do not mix TREE-äge before injection with other products such as insecticides, fungicides, plant growth regulators, surfactants, adjuvants, and fertilizers.

RESTRICTIONS

Do not apply to trees that may yield food consumed by humans or used in animal feed. TREE-äge is not to be reformulated or repackaged, including custom blended.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool, dry place, away from children and pets. Keep from freezing.

Pesticide Disposal: Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

TREE-äge is a registered trademark of Arborjet, Inc.

Manufactured for: Arborjet, Inc.
99 Blueberry Hill Road
Woburn, MA 01801

SCPPL ABJ 1309A-L1D 0314, Material #4036736



Pest Alert

Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Spotted Lanternfly (*Lycorma delicatula*)

The spotted lanternfly is an invasive pest, primarily known to affect tree of heaven (*Ailanthus altissima*). It has been detected on many host plants, including apples, plums, cherries, peaches, nectarines, apricots, almonds, and pine. It also feeds on oak, walnut, poplar, and grapes. The insect will change hosts as it goes through its developmental stages. Nymphs feed on a wide range of plant species, while adults prefer to feed and lay eggs on tree of heaven (*A. altissima*).¹ If allowed to spread in the United States, this pest could seriously harm the country's grape, orchard, and logging industries.

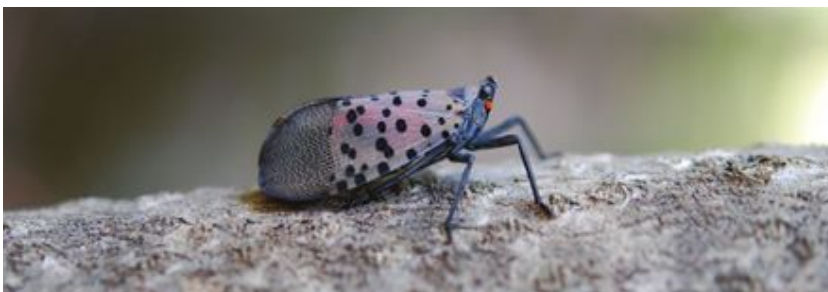
Distribution and Spread

The spotted lanternfly is present in China, India, Japan, South Korea, and Vietnam. The insect was detected in Pennsylvania in September 2014. This was the first detection of spotted lanternfly in the United States.

Spotted lanternflies are invasive and can spread rapidly when introduced to new areas. While the insect can walk, jump, or fly short distances, its long-distance spread is facilitated by people who move infested material or items containing egg masses.

Damage

Both nymphs and adults of spotted lanternfly cause damage when they feed, sucking sap from stems and leaves. This can reduce photosynthesis, weaken the plant, and eventually contribute to the plant's death. In addition, feeding can cause the plant to ooze or weep,



Adult spotted lanternfly

resulting in a fermented odor, and the insects themselves excrete large amounts of fluid (honeydew). These fluids promote mold growth and attract other insects.

Description

Adult spotted lanternflies are approximately 1 inch long and one-half inch wide, and they have large and visually striking wings. Their forewings are light brown with black spots at the front and a speckled band at the rear. Their hind wings are scarlet with black spots at the front and white and black bars at the rear. Their abdomen is yellow with black bars. Nymphs in their early stages of

development appear black with white spots and turn to a red phase before becoming adults. Egg masses are yellowish-brown in color, covered with a gray, waxy coating prior to hatching.

Life Cycle

The spotted lanternfly lays its eggs on smooth host plant surfaces and on non-host material, such as bricks, stones, and dead plants. Eggs hatch in the spring and early summer, and nymphs begin feeding on a wide range of host plants by sucking sap from young stems and leaves. Adults appear in late July and tend to focus their feeding on tree of heaven (*A. altissima*) and grapevine

¹ In Pennsylvania, adult spotted lanternflies have also been found feeding and egg laying on willow, maple, poplar, and sycamore, as well as on fruit trees, like plum, cherry, and peach.

(*Vitis vinifera*). As the adults feed, they excrete sticky, sugar-rich fluid similar to honeydew. The fluid can build up on plants and on the ground underneath infested plants, causing sooty mold to form.

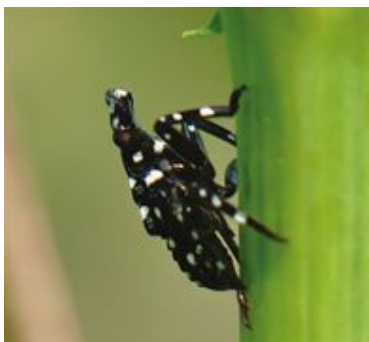
Where To Look

Spotted lanternfly adults and nymphs frequently gather in large numbers on host plants. They are easiest to spot at dusk or at night as they migrate up and down the trunk of the plant. During the day, they tend to cluster near the base of the plant if there is adequate cover or in the canopy, making them more difficult to see. Egg masses can be found on smooth surfaces on the trunks of host plants and on other smooth surfaces, including brick, stone, and dead plants.

Report Your Findings

If you find an insect that you suspect is the spotted lanternfly, please contact your local Extension office or State Plant Regulatory Official to have the specimen identified properly.

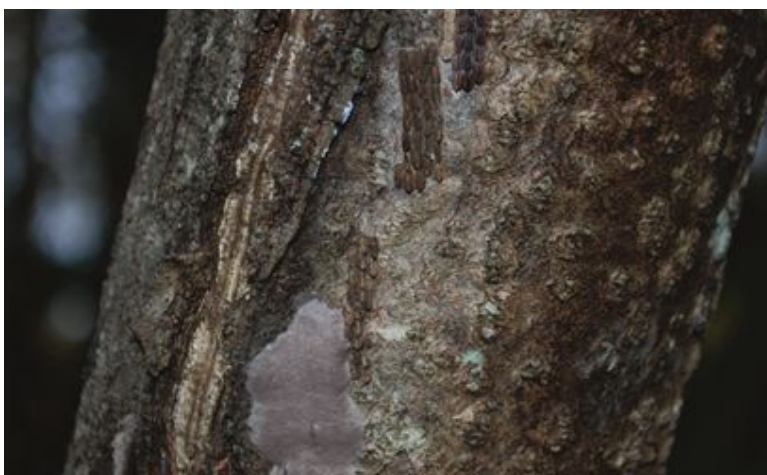
To locate an Extension specialist near you, go to the U.S. Department of Agriculture (USDA) Web site at **www.nifa.usda.gov/Extension**. A directory of State Plant Regulatory Officials is available on the National Plant Board Web site at **www.nationalplantboard.org/membership**.



Nymphs are black with white spots in early stages of development. (Credit: itchydogimages)



Nymphs turn red just before becoming adults. (Credit: itchydogimages)



Hatched and unhatched egg masses



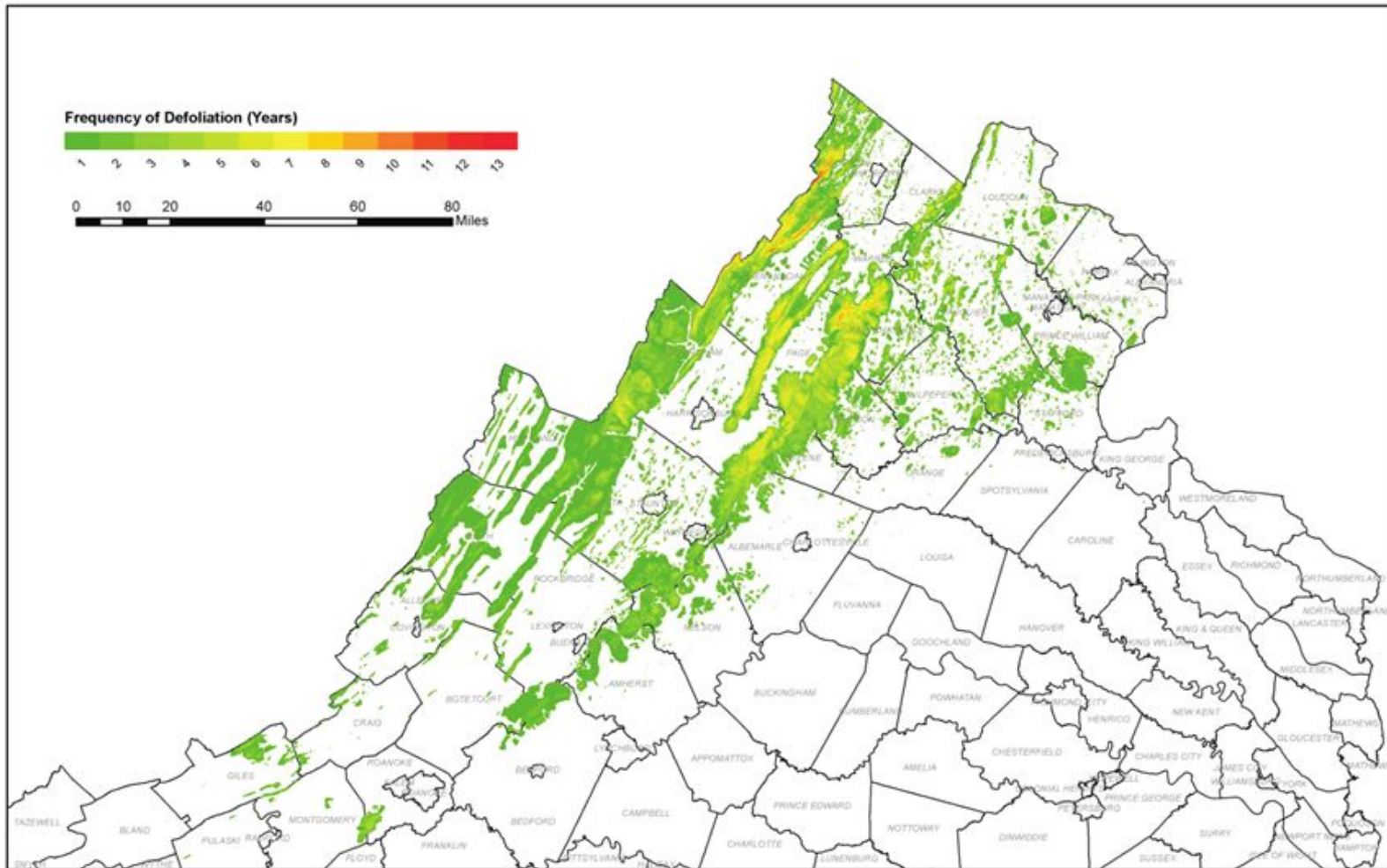
Cluster of adults on the trunk of a tree at night

APHIS 81-35-024
Issued November 2014

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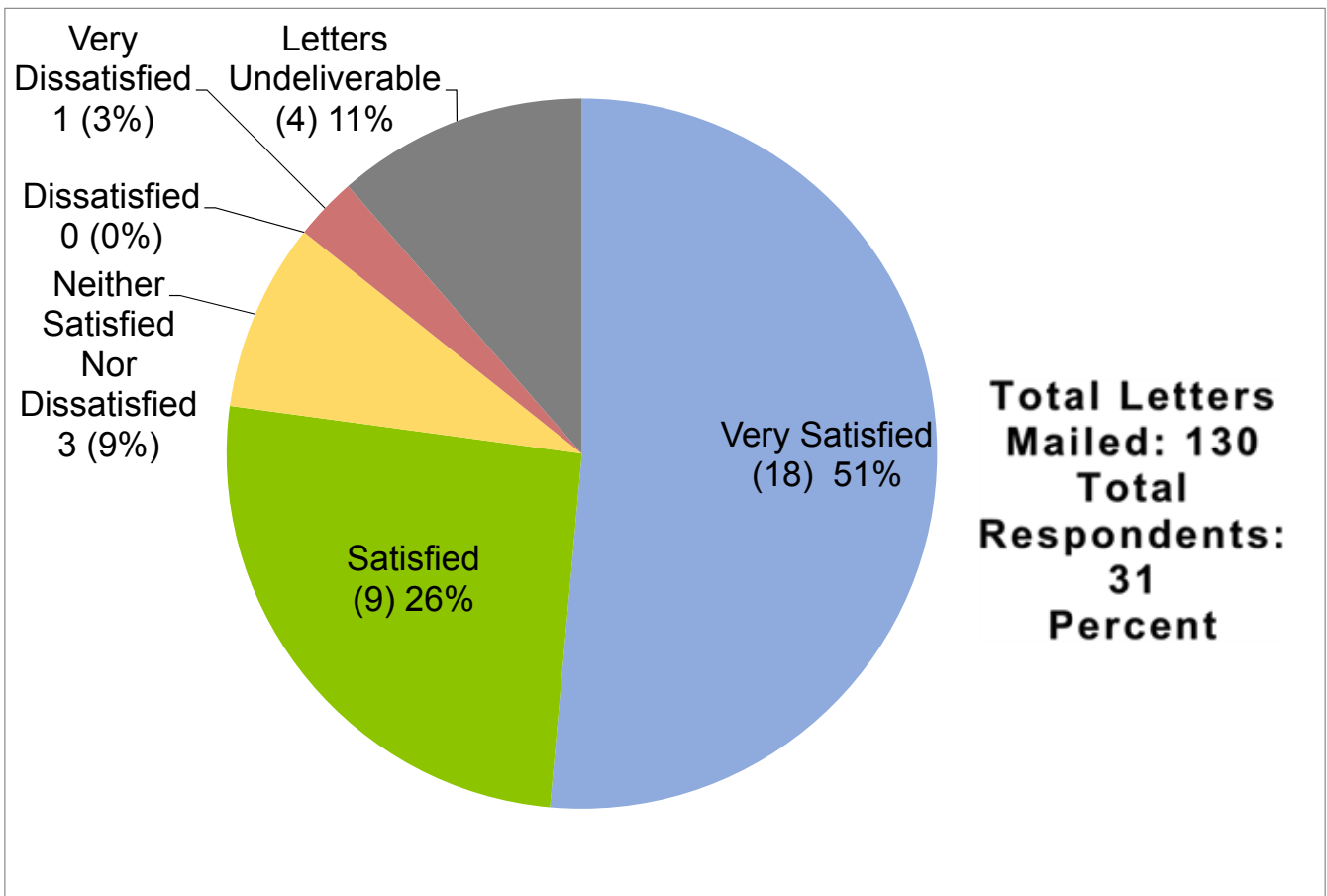
Gypsy Moth Cumulative Defoliation (1984-2009)



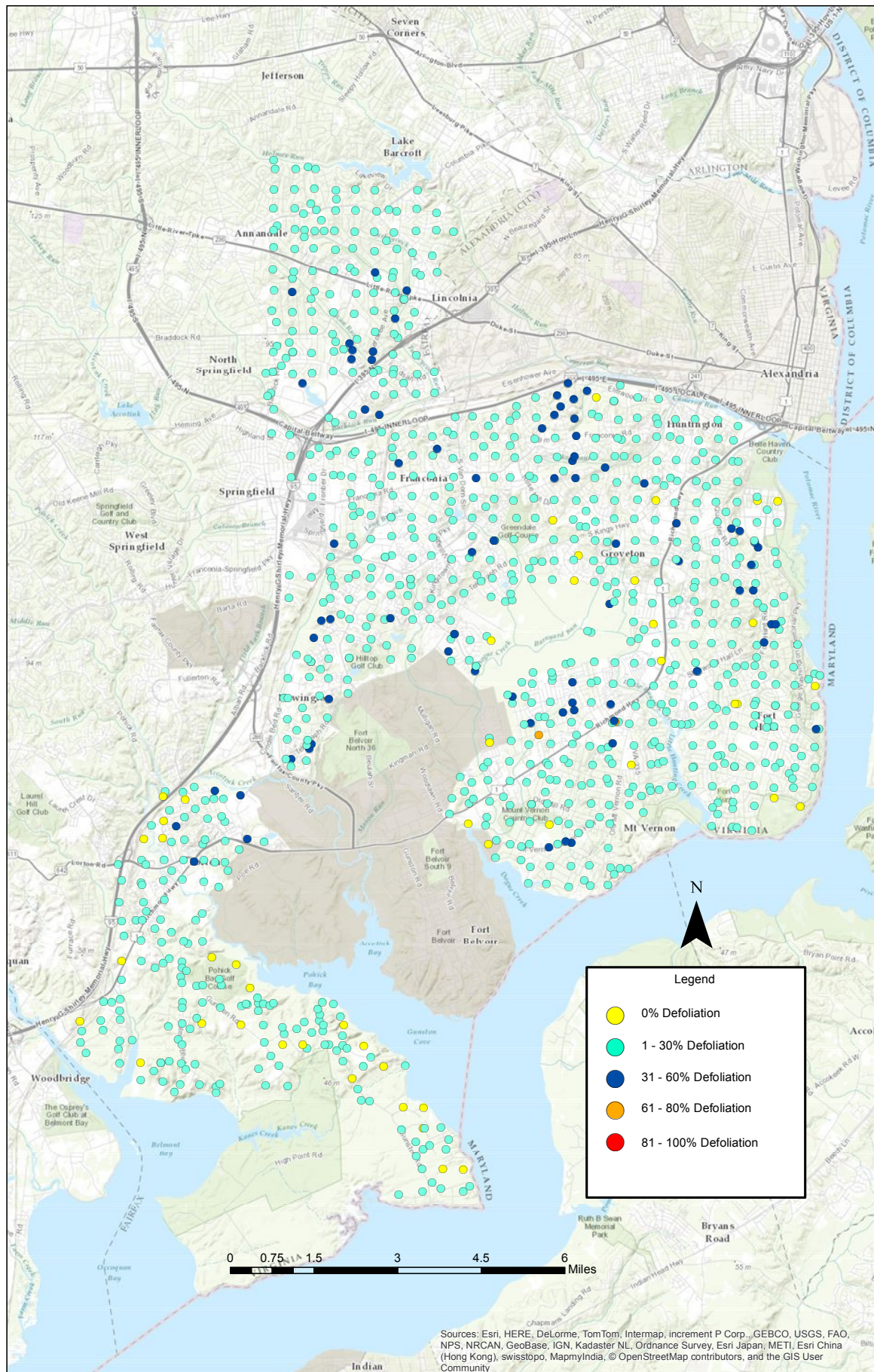
Acres affected within Virginia
Total - 2,426,956

Mapped by Todd Edgerton 2/17/2010

2015 Fall Cankerworm Citizen Feedback Survey



Fall Cankerworm Defoliation Survey - 2015



Pest Alert

United States
Department of
Agriculture

Forest Service

Northeastern Area
State and Private Forestry

NA-PR-09-05

August 2005

Hemlock Woolly Adelgid

Native to Asia, the hemlock woolly adelgid (*Adelges tsugae*) is a small, aphidlike insect that threatens the health and sustainability of eastern hemlock (*Tsuga canadensis*) and Carolina hemlock (*Tsuga caroliniana*) in the Eastern United States. Hemlock woolly adelgid was first reported in the Eastern United States in 1951 near Richmond, Virginia. By 2005, it was established in portions of 16 States from Maine to Georgia, where infestations covered about half of the range of hemlock. Areas of extensive tree mortality and decline are found throughout the infested region, but the impact has been most severe in some areas of Virginia, New Jersey, Pennsylvania, and Connecticut.

Hemlock decline and mortality typically occur within 4 to 10 years of infestation in the insect's northern range, but can occur in as little as 3 to 6 years in its southern range. Other hemlock stressors, including drought, poor site conditions, and insect and disease pests such as elongate hemlock scale (*Fiorinia externa*), hemlock looper (*Lambdina fiscellaria fiscellaria*), spruce spider mite (*Oligonychus ununguis*), hemlock borer (*Melanophila fulvogutta*), root rot disease (*Armillaria mellea*), and needle rust (*Melampsora parlowii*), accelerate the rate and extent of hemlock mortality.

Hosts

The hemlock woolly adelgid develops and reproduces on all species of hemlock, but only eastern and Carolina hemlock are vulnerable when attacked. The range of eastern hemlock stretches from Nova Scotia to northern Alabama and west to northeastern Minnesota and eastern Kentucky. Carolina hemlock occurs on dry mountain slopes in the southern Appalachians of western Virginia, North and South Carolina, Georgia, and Tennessee. Eastern hemlock is also commonly planted as a tree, shrub, or hedge in ornamental landscapes. At least 274 cultivars of eastern hemlock are known to exist.

Description

The hemlock woolly adelgid is tiny, less than 1/16-inch (1.5-mm) long, and varies from dark reddish-brown to purplish-black in color. As it matures, it produces a covering of wool-like wax filaments to protect itself and its eggs from natural enemies and prevent them from drying out. This "wool" (ovisac) is most conspicuous when the adelgid is mature and laying eggs. Ovisacs can be readily



FIGURE 1.—Hemlock woolly adelgid ovisacs.

observed from late fall to early summer on the underside of the outermost branch tips of hemlock trees (figure 1).

Life History

The hemlock woolly adelgid is parthenogenetic (all individuals are female with asexual reproduction) and has six stages of development: the egg, four nymphal instars, and the adult. The adelgid completes two generations a year on hemlock. The winter generation, the sistens, develops from early summer to midspring of the following year (June–March). The spring generation, the progrediens, develops from spring to early summer (March–June). The generations overlap in mid to late spring.

The hemlock woolly adelgid is unusual in that it enters a period of dormancy during the hot summer months. The nymphs during this time period have a tiny halo of woolly wax surrounding their bodies (figure 2). The adelgids begin to feed once cooler temperatures prevail, usually in October, and continue throughout the winter months.

The ovisacs of the winter generation contain up to 300 eggs, while the spring generation ovisacs contain between 20 and 75 eggs. When hatched, the first instar nymphs, called crawlers, search for suitable feeding sites on the twigs at the base of hemlock needles. Once settled, the nymphs begin feeding on the young twig tissue and remain at that location throughout the remainder of their development. Unlike closely related insects that feed on nutrients in sap, the hemlock woolly adelgid feeds on stored starches. These starch reserves are critical to the tree's growth and long-term survival.



FIGURE 2.—Hemlock woolly adelgid nymphs in dormancy.



FIGURE 3.—Chemical treatment using the soil injection method.



FIGURE 4.—Predators introduced for control in the Eastern United States, left to right (origin): *Sasajiscymnus tsugae* (Japan), *Scymnus sinuanodulus* (China), and *Laricobius nigrinus* (Western North America).

Dispersal and movement of hemlock woolly adelgid occur primarily during the first instar crawler stage as a result of wind and by birds, deer, and other forest-dwelling mammals that come in contact with the sticky ovisacs and crawlers. Isolated infestations and long-distance movement of hemlock woolly adelgid, though, most often occur as the result of people transporting infested nursery stock.

Control

Cultural, regulatory, chemical, and biological controls can reduce the hemlock woolly adelgid's rate of spread and protect individual trees. Actions such as moving bird feeders away from hemlocks and removing isolated infested trees from a woodlot can help prevent further infestations. State quarantines help prevent the movement of infested materials into noninfested areas.

Chemical control options, such as foliar sprays using horticultural oils and insecticidal soaps, are effective when trees can be saturated to ensure that the insecticide comes in contact with the adelgid. Several systemic insecticides have also proven effective on large trees when applied to the soil around the base of the tree or injected directly into the stem (figure 3). Chemical control is limited to individual tree treatments in readily accessible, nonenvironmentally sensitive areas; it is not feasible in forests, particularly when large numbers of trees are infested. Chemical treatments offer a short-term solution, and applications may need to be repeated in subsequent years.

The best option for managing hemlock woolly adelgid in forests is biological control. Although there are natural enemies native to Eastern North America that feed on hemlock woolly adelgid, they are not effective at reducing populations enough to prevent tree mortality. Therefore, biological control opportunities using natural enemies (predators and pathogens) from the adelgid's native environment are currently being investigated. Several predators known to feed exclusively on adelgids have been imported from China, Japan, and Western North America and are slowly becoming established throughout the infested region (figure 4). It will likely take a complex of natural enemies to maintain hemlock woolly adelgid populations below damaging levels. Efforts to locate, evaluate, and establish other natural enemies continue.

Pesticide Precautionary Statement

Pesticides used improperly can be injurious to humans, animals, and plants. Follow the directions and heed all precautions on the labels.

Note: Some States have restrictions on the use of certain pesticides. Check your State and local regulations. Also, because registrations of pesticides are under constant review by the Federal Environmental Protection Agency, consult your county agricultural agent or State extension specialist to be sure the intended use is still registered.



For additional information or copies of this publication, visit <http://www.na.fs.fed.us/fhp/hwa>.



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Pest Alert

United States
Department of Agriculture
Forest Service
Northeastern Area
State and Private Forestry
NA-PR-02-10
Revised August 2010

Thousand Cankers Disease

Dieback and mortality of eastern black walnut (*Juglans nigra*) in several Western States have become more common and severe during the last decade. A tiny bark beetle is creating numerous galleries beneath the bark of affected branches, resulting in fungal infection and canker formation. The large numbers of cankers associated with dead branches suggest the disease's name—*thousand cankers disease*.

The principal agents involved in this disease are a newly identified fungus (*Geosmithia* sp. with a proposed name of *Geosmithia morbida*) and the walnut twig beetle (*Pityophthorus juglandis*). Both the fungus and the beetle only occur on walnut species. An infested tree usually dies within 3 years of initial symptoms.

Thousand cankers disease has been found in many Western States (figure 1). The first confirmation of the beetle and fungus within the native range of black walnut was in Tennessee (July 2010). The potential damage of this disease to eastern forests could be great because of the widespread distribution of eastern black walnut, the susceptibility of this tree species to the disease, and the capacity of the fungus and beetle to invade new areas and survive under a wide range of climatic conditions in the west.

Disease Symptoms

The three major symptoms of this disease are branch mortality, numerous small cankers on branches and the bole, and evidence of tiny bark beetles. The earliest symptom is yellowing foliage that progresses rapidly to brown wilted foliage, then finally branch mortality (figure 2). The fungus causes distinctive circular to oblong cankers in the phloem under the bark, which eventually kill the cambium (figure 3). The bark surface may have no symptoms, or a dark amber stain or cracking of the bark may occur directly above a canker. Numerous tiny bark beetle entrance and exit holes are visible on dead and dying branches (figure 4), and bark beetle galleries are often found within the cankers. In the final stages of disease, even the main stem has beetle attacks and cankers.

Geosmithia sp.

Members of the genus *Geosmithia* have not been considered to be important plant pathogens, but



Figure 1. Thousand cankers disease occurs in eight western states (outlined in red) and in the east was first confirmed in Knoxville, TN in July 2010 (see *). In the west the year when symptoms were first noted is given. Native distributions of four species of western walnuts (blue) and eastern black walnut (green) are also shown. Eastern black walnut is widely planted in the West, but not depicted on this map.

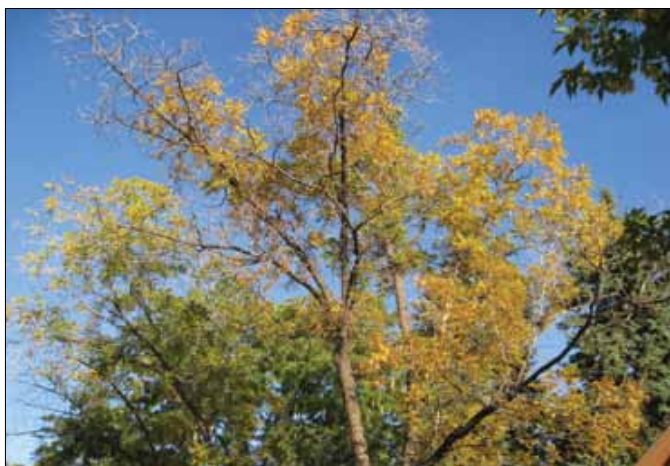


Figure 2. Wilting black walnut in the last stages of thousand cankers disease.



Figure 3. Small branch cankers caused by *Geosmithia morbida*.

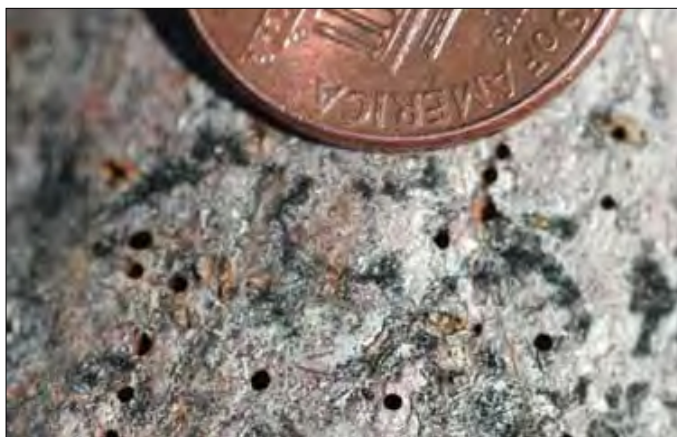


Figure 4. Exit holes made by adult walnut twig beetles.

Geosmithia morbida appears to be more virulent than related species. Aside from causing cankers, the fungus is inconspicuous. Culturing on agar media is required to confirm its identity. Adult bark beetles carry fungal spores that are then introduced into the phloem when they construct galleries. Small cankers develop around the galleries; these cankers may enlarge and coalesce to completely girdle the branch. Trees die as a result of these canker infections at each of the thousands of beetle attack sites.

Walnut Twig Beetle

The walnut twig beetle is native to Arizona, California, and New Mexico. It has invaded Colorado, Idaho, Oregon, Utah, and Washington where walnuts have been widely planted. The beetle has not caused significant branch mortality by itself. Through its association with this newly identified fungus, it appears to have greatly increased in abundance. Adult beetles are very small (1.5 to 2.0 mm long or about 1/16 in) and are reddish brown in color (figure 5). This species is a typical-looking bark beetle that is characterized by its very small size and four to six concentric ridges on the upper surface of the pronotum (the shield-like cover behind and over the head) (figure 5A). Like most bark beetles, the larvae are white, C shaped, and found in the phloem. For this species, the egg galleries created by the adults are horizontal (across the grain) and the larval galleries tend to be vertical (along the grain) (figure 6).

Survey and Samples

Visually inspecting walnut trees for dieback is currently the best survey tool for the Eastern United States. Look for declining trees with the symptoms described above. If you suspect that your walnut trees have thousand cankers disease, collect a branch 2 to 4 inches

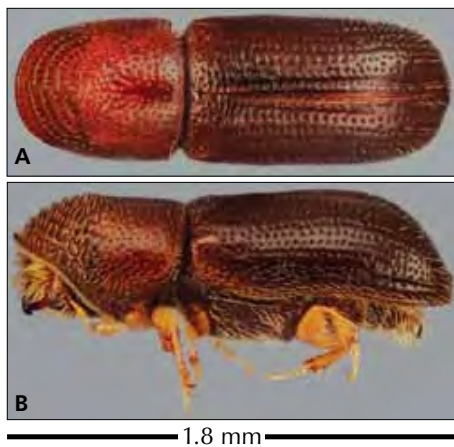


Figure 5. Walnut twig beetle: top view (A) and side view (B).



Figure 6. Walnut twig beetle galleries under the bark of a large branch.

in diameter and 6 to 12 inches long that has visible symptoms. Please submit branch samples to your State's plant diagnostic clinic. Each State has a clinic that is part of the National Plant Diagnostic Network (NPDN). They can be found at the NPDN Web site (www.npdn.org). You may also contact your State Department of Agriculture, State Forester, or Cooperative Extension Office for assistance.

Prepared by:

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Dennis Haugen, Forest Entomologist, and Joseph O'Brien, Plant Pathologist, U.S. Forest Service, Northeastern Area State and Private Forestry

Andrew Graves, Postdoctoral Research Associate, UC-Davis, Department of Plant Pathology

Photographs:

Figure 1: Andrew Graves

Figure 2: Manfred Mielke, U.S. Forest Service

Figures 3, 4, 6: Whitney Cranshaw, Colorado State University, www.forestryimages.org

Figure 5: Steve Valley, Oregon Department of Agriculture

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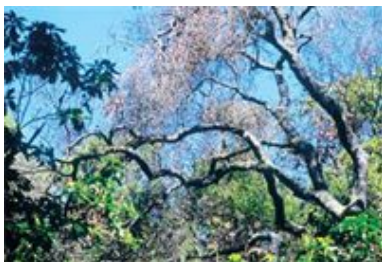


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Sudden Oak Death

Oak mortality is caused by a new pathogen, *Phytophthora ramorum*

A phenomenon known as Sudden Oak Death was first reported in 1995 in central coastal California. Since then, tens of thousands of tanoaks (*Lithocarpus densiflorus*), coast live oaks (*Quercus agrifolia*), and California black oaks (*Quercus kelloggii*) have been killed by a newly identified fungus, *Phytophthora ramorum*. On these hosts, the fungus causes a bleeding canker on the stem. The pathogen also infects *Rhododendron* spp., huckleberry (*Vaccinium ovatum*), bay laurel (*Umbellularia californica*), madrone (*Arbutus menziesii*), bigleaf maple (*Acer macrophyllum*), manzanita (*Arctostaphylos manzanita*), and California buckeye (*Aesculus californica*). On these hosts the fungus causes leaf spot and twig dieback.



In California *Phytophthora ramorum* causes crown symptoms and tree mortality.

As of January 2002, the disease was known to occur only in California and southwestern Oregon; however, transporting infected hosts may spread the disease. The pathogen has the potential to infect oaks and other trees and shrubs elsewhere in the United States. Limited tests show that many oaks are susceptible to the fungus, including northern red oak and pin oak, which are highly susceptible.

On oaks and tanoak, cankers are formed on the stems. Cankered trees may survive for one to several years, but once crown dieback begins, leaves turn from green to pale yellow to brown within a few weeks. A black or reddish ooze often

bleeds from the cankers, staining the surface of the bark and the lichens that grow on it. Bleeding ooze may be difficult to see if it has dried or has been washed off by rain, although remnant dark staining is usually present.

Necrotic bark tissues surrounded by black zone lines are usually present under affected bark. Because these symptoms can also be caused by other *Phytophthora* species, laboratory tests must be done to confirm pathogen identity.

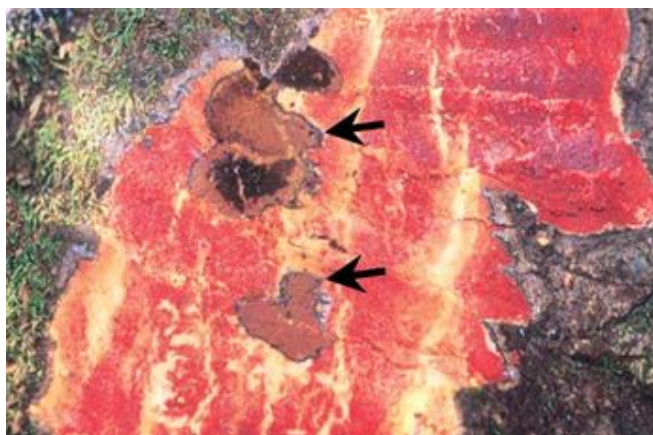
In the Eastern United States, other disorders of oaks have similar symptoms. See the reverse of this sheet for descriptions. If unusual oak mortality occurs and symptoms do not match these regional disorders, evaluate affected trees for *Phytophthora ramorum*.

In the United States, sudden oak death is known to occur only along the west coast. However, the fact that widely traded rhododendron ornamentals can be infected with the pathogen and the demonstrated susceptibility of some important eastern oaks make introduction to eastern hardwood forests a significant risk. Early detection will be important for successful eradication. Oaks defoliated early in the growing season by insects or pathogens may appear dead, but leaves usually reflush later in the season. Canker rots, slime flux, leaf scorch, root diseases, freeze damage, herbicide injury, and other ailments may cause symptoms similar to those caused by *P. ramorum*. Oak wilt, oak decline, and red oak borer damage are potentially the most confusing. See the reverse of this sheet for comparisons with sudden oak death symptoms.

To report infected trees or to receive additional information, please contact your State or Federal forest health specialist. On the Internet, visit the SOD home page at www.suddenoakdeath.org. To distinguish this new disease from diseases with similar appearance, visit www.na.fs.fed.us/SOD.



Ooze bleeds from a canker on an infected oak.



Black zone lines are found under diseased bark in oak.

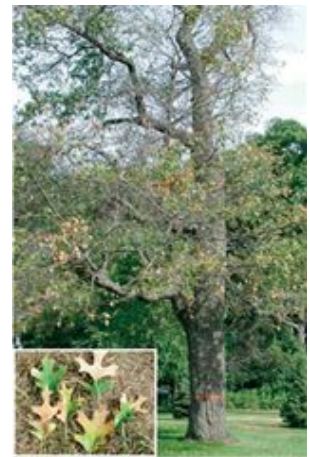
Eastern Oak Disorders That Resemble Sudden Oak Death

In eastern hardwood forests, sudden oak death can be confused, in particular, with oak wilt, oak decline, and red oak borer damage. Descriptions of these disorders and comparisons with sudden oak death follow.

Oak Wilt

Oak wilt is an aggressive fungus disease caused by *Ceratocystis fagacearum*. It is one of the most serious diseases in the Eastern United States, killing thousands of oak trees in forests, woodlots, and home landscapes. Susceptible hosts include most oaks in the red oak group and Texas live oak. Symptoms include wilting and discoloration of the foliage, premature leaf drop, and rapid death of the tree within days or weeks of the first symptoms. Trees become infected with oak wilt in two ways: through connections between root systems of adjacent trees, and through insects that carry the fungus to other trees that have been wounded.

Similarities: Oak wilt can also kill trees very quickly, especially if infection begins through root grafts. **Differences:** The oak wilt pathogen does not cause cankers on the stems, and no bleeding is associated with this disease. Dark staining may be evident under the bark of trees with oak wilt, but there are no conspicuous zone lines. Oak wilt typically causes red oak leaves to turn brown around the edges while the veins remain green. Leaves are rapidly shed as the tree dies. Conversely, in live oak with the sudden oak death pathogen, the veins first turn yellow and eventually turn brown. Leaves are often retained on the tree after it dies.



Oak wilt quickly kills most infected trees. Wilting leaves turn brown at the margins (inset) and fall as the tree dies.

Oak Decline

Oak decline is a slow-acting disease complex that can kill physiologically mature trees in the upper canopy. Decline results from interactions of multiple stresses, such as prolonged drought and spring defoliation by late frost or insects, opportunistic root disease fungi such as *Armillaria mellea*, and inner-bark-boring insects such as the two-lined chestnut borer and red oak borer. Progressive dieback of the crown is the main symptom of oak decline and is an expression of an impaired root system. This disease can kill susceptible oaks within 3-5 years of the onset of crown symptoms. Oak decline occurs throughout the range of eastern hardwood forests, but is particularly common in the Southern Appalachian Mountains in North Carolina, Tennessee, and Virginia, as well as the Ozark Mountains in Arkansas and Missouri.

Similarities: Oak decline can cause death of many oaks on a landscape scale. Moist, dark stains may be present on the trunk of trees affected by oak decline. **Differences:** Oak decline shows evidence that dieback has occurred over several years from the top down and outside inward. Newly killed branches with twigs attached are usually found in the same crown as those in a more advanced state of deterioration killed years before. Dieback associated with sudden oak death occurs over a growing season or two. The inner bark beneath the dark stain associated with stem-boring-insect attacks has a discrete margin with no zone lines or evidence of canker development beyond the attack site.



Oak decline can take years to kill an entire tree.

Red Oak Borer

Red oak borer (*Enaphalodes rufulus* (Haldeman)) attacks oaks of both red and white groups throughout the eastern United States, but prefers members of the red oak group; however, it does not kill trees. Outbreaks are associated with stressed trees that eventually die from oak decline. The complete life cycle takes 2 years. Adults are 1-1.5 inches long with antennae one to two times as long as the body. Larvae are the damaging life stage. Adult females lay eggs in mid-summer in refuges in the crevices of the bark. Newly hatched larvae bore into the phloem, where they mine an irregular burrow 0.5-1 inch in diameter before fall. In spring and summer of the second year, dark, moist stains and fine, granular frass may be seen on the trunk. Exposure of the inner bark reveals the frass-packed

burrow and the larva, if it has not bored more deeply into the wood to complete development. Mature larvae are stout, round-headed grubs about 2 inches long before they pupate deep in the wood.

Similarities: Moist, dark stains and fine frass may be present at sites of red oak borer attack. **Differences:** With red oak borer the inner bark beneath the dark stain contains a frass-packed burrow and has a discrete margin with no zone lines or evidence of canker development beyond it.



Tunnels in the inner bark indicate the presence of red oak borer.

For further information on related disorders:

Oak Wilt: http://www.na.fs.fed.us/spfo/pubs/howtos/ht_oakwilt/toc.htm

Oak Decline: <http://www.na.fs.fed.us/spfo/pubs/fidls/oakdecline/oakdecline.htm>

Red Oak Borer: <http://www.na.fs.fed.us/spfo/pubs/fidls/Red%20Oak%20Borer/reoak.htm>

Other Pest Publications: http://www.na.fs.fed.us/spfo/fth_pub.htm

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Pest Alert



United States
Department of Agriculture

Forest Service

Animal and Plant
Health Inspection Service

NA-PR-01-99GEN
Revised August 2008

Asian Longhorned Beetle (*Anoplophora glabripennis*): A New Introduction

The Asian longhorned beetle (ALB) has been discovered attacking trees in the United States. Tunneling by beetle larvae girdles tree stems and branches. Repeated attacks lead to dieback of the tree crown and, eventually, death of the tree. ALB probably travelled to the United States inside solid wood packing material from China. The beetle has been intercepted at ports and found in warehouses throughout the United States.

This beetle is a serious pest in China, where it kills hardwood trees in roadside plantings, shelterbelts, and plantations. In the United States the beetle prefers maple species (*Acer* spp.), including **boxelder**, **Norway**, **red**, **silver**, and **sugar maples**. Other preferred hosts are **birches**, **Ohio buckeye**, **elms**, **horsechestnut**, and **willows**. Occasional to rare hosts include **ashes**, **European mountain ash**, **London planetree**, **mimosa**, and **poplars**. A complete list of host trees in the United States has not been determined.

Currently, the only effective means to eliminate ALB is to remove infested trees and destroy them by chipping or burning. To prevent further spread of the insect, quarantines are established to avoid transporting infested

trees and branches from the area. Early detection of infestations and rapid treatment response are crucial to successful eradication of the beetle.

The ALB has one generation per year. Adult beetles are usually present from July to October, but can be found later in the fall if temperatures are warm. Adults usually stay on the trees from which they emerged or they may disperse short distances to a new host to feed and reproduce. Each female usually lays 35-90 eggs during her lifetime. Some are capable of laying more than that. The eggs hatch in 10-15 days. The larvae feed under the bark in the living tissue of the tree for a period of time and then bore deep into the wood where they pupate. The adults emerge from pupation sites by boring a tunnel in the wood and creating a round exit hole in the tree.

For more information about Asian longhorned beetle in the United States, visit these U.S. Department of Agriculture Web sites:

www.na.fs.fed.us/fhp/alb/

www.aphis.usda.gov/plant_health/plant_pest_info/asian_lhb/index.shtml

If you suspect an Asian longhorned beetle infestation, please collect an adult beetle in a jar, place the jar in the freezer, and immediately notify any of these officials or offices in your State:

State Department of Agriculture:

- State Plant Regulatory Official
- State Entomologist

U.S. Department of Agriculture:

- Animal and Plant Health Inspection Service,
Plant Protection and Quarantine
- Forest Service

County Cooperative Extension Office

State Forester or Department of Natural Resources

Asian Longhorned Beetle

WHAT TO LOOK FOR:



1. Adult beetles. Individuals are $\frac{3}{4}$ to $1\frac{1}{4}$ inches long, with jet black body and mottled white spots on the back. The long antennae are $1\frac{1}{2}$ to $2\frac{1}{2}$ times the body length with distinctive black and white bands on each segment. The feet have a bluish tinge.



2. Oval to round pits in the bark. These egg-laying sites or niches are chewed out by the female beetle, and a single egg is deposited in each niche.



3. Oozing sap. In the summer, sap may flow from egg niches, especially on maple trees, as the larvae feed inside the tree.



4. Accumulation of coarse sawdust around the base of infested trees, where branches meet the main stem, and where branches meet other branches. This sawdust is created by the beetle larvae as they bore into the main tree stem and branches.



5. Round holes, $\frac{3}{8}$ inch in diameter or larger, on the trunk and on branches. These exit holes are made by adult beetles as they emerge from the tree.

Photo Sources:

USDA Forest Service

USDA Animal and Plant Health Inspection Service

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Board Agenda Item
March 1, 2016

ACTION – 3

Grant Agreement Between the Virginia Department of Environmental Quality and Fairfax County for the Accotink Tributary at Wakefield Park, South; Accotink Tributary at Wakefield Park, North; Paul Spring Branch at Gilbert McCutcheon Park; Colony Park; Accotink Tributary at Daventry; Difficult Run at Oakton Estates; Inverchapel Road Outfall Rehabilitation; and Flatlick Branch, Phase I Projects (Braddock, Mason, Mount Vernon, Springfield, and Sully Districts)

ISSUE:

Board of Supervisors' authorization is requested for the County to approve the Grant Agreement between the Virginia Department of Environmental Quality and Fairfax County that provides Stormwater Local Assistance Funds (SLAF) for the design and construction of the Accotink Tributary at Wakefield Park, South; Accotink Tributary at Wakefield Park, North; Paul Spring Branch at Gilbert McCutcheon Park; Colony Park; Accotink Tributary at Daventry; Difficult Run at Oakton Estates; Inverchapel Road Outfall Rehabilitation; and Flatlick Branch, Phase I projects.

RECOMMENDATION:

The County Executive recommends that the Board approve and authorize the County Executive or his designee to sign the agreement with Department of Environmental Quality to provide SLAF grant funds to the County for the design and construction of the Accotink Tributary at Wakefield Park, South; Accotink Tributary at Wakefield Park, North; Paul Spring Branch at Gilbert McCutcheon Park; Colony Park; Accotink Tributary at Daventry; Difficult Run at Oakton Estates; Inverchapel Road Outfall Rehabilitation; and Flatlick Branch, Phase I projects.

TIMING:

Board approval is requested on March 1, 2016.

BACKGROUND:

The Virginia General Assembly created the Stormwater Local Assistance Fund (SLAF) to provide matching grants to local governments for planning, designing, and implementing best management practices to reduce pollution generated from

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stormwater runoff. In October 2014, the County submitted an application to the Virginia Department of Environmental Quality (DEQ) in response to the Fiscal Year 2015 SLAF grant solicitation. In its application, the County requested funding for nine stream and water quality improvement projects. In December 2014, DEQ issued a project funding list that included the following nine projects that were submitted by Fairfax County:

- Accotink Tributary at Wakefield Park, South
- Accotink Tributary at Wakefield Park, North
- Paul Spring Branch at Gilbert McCutcheon Park
- Colony Park
- Accotink Tributary at Daventry
- Difficult Run at Oakton Estates
- Inverchapel Road Outfall Rehabilitation
- Flatlick Branch Phase I
- Turkeycock Run Stream Restoration/Pinecrest Golf Course

The nine projects are located in the Braddock, Mason, Mount Vernon, Springfield, and Sully magisterial districts.

Collectively, these projects are computed to reduce phosphorous, nitrogen, and total suspended solids in our streams and the Chesapeake Bay by 518 pounds/year, 599 pounds/year, and 168 tons/year, respectively.

The Accotink Tributary at Wakefield Park projects are under construction and scheduled for substantial completion in January 2017. The projects will restore approximately 2,700 linear feet of two unnamed tributaries to Accotink Creek (South approximately 1,830 linear feet and North approximately 870 linear feet). The South and North projects are identified as AC9210 and AC9232, respectively, in the Accotink Creek Watershed Management Plan. The project sites are located entirely on Fairfax County Park Authority property at 8100 Braddock Road and found on Tax Map 70-4.

The Paul Spring Branch at Gilbert McCutcheon Park stream restoration project was substantially complete in September 2015. This project restored approximately 550 linear feet of tributary to Paul Spring Branch in the Little Hunting Creek Watershed. The project is identified as LH9150 in the Little Hunting Creek Watershed Management Plan and is located entirely on Fairfax County Park Authority property near the intersection of Belle Vista Drive and Admiral Drive and found on Tax Map 93-4.

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The Colony Park project is under construction and scheduled for substantial completion in April 2016. This project will retrofit two dry detention basins as constructed wetlands and restore approximately 300 linear feet of an unnamed tributary in the Pohick Creek Watershed. The project is identified as PC9131 in the Pohick Creek Watershed Management Plan and is located within a storm drainage easement near 10250 New Guinea Road and found on Tax Map 77-2.

The Accotink Tributary at Daventry stream restoration project is under construction and scheduled for substantial completion in February 2016. The Daventry project will restore approximately 335 linear feet of an unnamed tributary in the Accotink Creek Watershed. The project was not originally included in the Watershed Management Plan; however since the development of the Plan, this project was identified as a priority project. The project is located on Fairfax County Park Authority property within a storm drainage easement near 7724 Gromwell Court and found on Tax Map 89-2.

The Difficult Run at Oakton Estates stream restoration project was substantially complete in June 2015. This project restored approximately 330 linear feet of an unnamed tributary in the Difficult Run Watershed. The project is identified as DF9405 in the Difficult Run Watershed Management Plan and is located within a storm drainage easement near 11705 Flemish Mill Court and found on Tax Map 46-2.

The Inverchapel Road Outfall Rehabilitation project was substantially complete in December 2015. This outfall rehabilitation restored approximately 175 linear feet of an unnamed tributary in the Accotink Creek Watershed. The project was not originally included in the Watershed Management Plan; however since the development of the Plan, this project was identified as a priority project. The project site is located entirely on Fairfax County Park Authority property behind 5216 and 5218 Inverchapel Road and found on Tax Map 79-1.

The Flatlick Phase I stream restoration project is under construction and scheduled for substantial completion in June 2016. This project will restore approximately 1,850 linear feet of Flatlick Branch in the Cub Run Watershed, and retrofit a dry detention basin into a constructed wetland. The project is identified as CU9214 in the Cub Run and Bull Run Watershed Management Plan and is located entirely on Fairfax County Park Authority property near 13661 Lee Jackson Memorial Highway and Chantilly Road and found on Tax Maps 34-4 and 44-2.

The Turkeycock Run Stream Restoration/Pinecrest Golf Course project is scheduled to begin construction in spring 2016 and is not included in the attached agreement. Rather, DEQ will issue an amendment to this agreement after the construction contract

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has been awarded and the notice to proceed has been issued. The project will restore approximately 300 linear feet of Turkeycock Run in the Cameron Run Watershed. This project is identified as CA9236 in the Cameron Run Watershed Management Plan and is located entirely on Fairfax County Park Authority property at 6600 Little River Turnpike and found on Tax Map 72-1.

On October 22, 2014, a memorandum from the County Executive notified the Board that the Stormwater Planning Division had submitted an SLAF application to fund these nine stormwater projects. Then, on January 9, 2015, the Board was notified by memorandum that DEQ had reviewed the County's application and authorized matching grant funding for the nine proposed projects. The final phase of documentation to receive reimbursement for the eight projects eligible for reimbursement at this time is the attached Grant Agreement submitted to the Board through this item.

FISCAL IMPACT:

This grant reimburses funds expended by the County. The state will reimburse costs, up to \$5,012,905 for fifty percent of total eligible project costs incurred by the County prior to and subsequent to executing the grant agreement. County funding for these projects is appropriated in Fund 400-C40100, Stormwater Services, Project SD-000031: Streams and Water Quality Improvements, and in Fund 300-C30090, Pro-Rata Share Drainage Construction, Project SD-000015: Little Hunting Creek Watershed. Reimbursed amounts will be received as revenue to the Stormwater program providing funds for other watershed improvement projects.

ENCLOSED DOCUMENTS:

Attachment 1: Grant Agreement SLAF 15-05

STAFF:

Robert A. Stalzer, Deputy County Executive

James W. Patteson, Director, Department of Public Works and Environmental Services (DPWES)

Randolph W. Bartlett, Deputy Director, DPWES

Kirk Kincannon, Director, Fairfax County Park Authority

**STORMWATER LOCAL ASSISTANCE FUND
GRANT AGREEMENT
SLAF Grant No.: 15-05**

THIS AGREEMENT is made as of this ____ day of _____, by and between the Virginia Department of Environmental Quality (the "Department"), and the County of Fairfax, Virginia (the "Grantee").

Pursuant to Item 360 in Chapter 860 of the 2013 Acts of Assembly (the Commonwealth's 2013-14 Budget) (the "Act"), the General Assembly created the Stormwater Local Assistance Fund (the "Fund"). The Department is authorized pursuant to Item C-39.40 in Chapter 1 of the 2014 Acts of Assembly, Special Session I, to provide matching grants to local governments for the planning, design, and implementation of stormwater best management practices that address cost efficiency and commitments related to reducing water quality pollutant loads.

The Grantee has been approved by the Department to receive a Grant from the Fund subject to the terms and conditions herein to finance fifty percent (50%) of the cost of the Eligible Project, which consists of the planning, design and implementation of best management practices for stormwater control as described herein. The Grantee will use the Grant to finance that portion of the Eligible Project Costs not being paid for from other sources as set forth in the Total Project Budget in Exhibit B to this Agreement. Such other sources may include, but are not limited to, the Virginia Water Facilities Revolving Fund, Chapter 22, Title 62.1 of the Code of Virginia (1950), as amended.

This Agreement provides for payment of the Grant, design and construction of the Eligible Project, and development and implementation by the Grantee of provisions for the long-term responsibility and maintenance of the stormwater management facilities and other techniques installed under the Eligible Project. This Agreement is supplemental to the State Water Control Law, Chapter 3.1, Title 62.1 of the Code of Virginia (1950), as amended, and it does not limit in any way the other water quality restoration, protection and enhancement, or enforcement authority of the State Water Control Board (the "Board") or the Department.

**ARTICLE I
DEFINITIONS**

1. The capitalized terms contained in this Agreement shall have the meanings set forth below unless the context requires otherwise:

(a) "Agreement" means this Stormwater Local Assistance Fund Grant Agreement between the Department and the Grantee, together with any amendments or supplements hereto.

(b) "Authorized Representative" means any member, official or employee of the Grantee authorized by resolution, ordinance or other official act of the governing body of the Grantee to perform the act or sign the document in question.

(c) "Capital Expenditure" means any cost of a type that is properly chargeable to a capital account (or would be so chargeable with (or but for) a proper election or the application of the

definition of "placed in service" under Treasury Regulation Section 1.150-2(c)) under general federal income tax principles, determined at the time the expenditure is paid.

(d) "Eligible Project" means all grant eligible items of the particular stormwater project described in Exhibit A to this Agreement to be designed and constructed by the Grantee with, among other monies, the Grant, with such changes thereto as may be approved in writing by the Department and the Grantee.

(e) "Eligible Project Costs" means costs of the individual items comprising the Eligible Project as permitted by the Act with such changes thereto as may be approved in writing by the Department and the Grantee. All Eligible Project Costs shall be Capital Expenditures and no Eligible Project Costs shall be Working Capital Expenditures.

(f) "Extraordinary Conditions" means unforeseeable or exceptional conditions resulting from causes beyond the reasonable control of the Grantee such as, but not limited to fires, floods, strikes, acts of God, and acts of third parties that singly or in combination cause material breach of this Agreement.

(g) "Grant" means the particular grant described in Section 4.0 of this Agreement, with such changes thereto as may be approved in writing by the Department and the Grantee.

(h) "Total Eligible Project Budget" means the sum of the Eligible Project Costs as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Department and the Grantee.

(i) "Total Project Budget" means the sum of the Eligible Project Costs (with such changes thereto as may be approved in writing by the Department and the Grantee) plus any ineligible costs that are solely the responsibility of the Grantee, as set forth in Exhibit B to this Agreement.

(j) "Project Engineer" means the Grantee's engineer who must be a licensed professional engineer registered to do business in Virginia and designated by the Grantee as the Grantee's engineer for the Eligible Project in a written notice to the Department.

(k) "Project Schedule" means the schedule for the Eligible Project as set forth in Exhibit C to this Agreement, with such changes thereto as may be approved in writing by the Department and the Grantee. The Project Schedule assumes timely approval of adequate plans and specifications and timely reimbursement in accordance with this Agreement by the Department.

(l) "Working Capital Expenditure" means any cost that is not a Capital Expenditure. Generally, current operating expenses are Working Capital Expenditures.

(m) "VPBA" means the Virginia Public Building Authority, a political subdivision of the Commonwealth of Virginia.

(n) "VPBA Bonds" means (i) the Virginia Public Building Authority Public Facilities Revenue Bonds, Series 2013A, which were issued by VPBA on February 21, 2013, (ii) any

other bonds issued by VPBA, the proceeds of which are used in whole or in part to provide funds for the making of the Grant, and (iii) any refunding bonds related thereto.

ARTICLE II

SCOPE OF PROJECT

2. The Grantee will cause the Eligible Project to be designed, constructed and placed in operation as described in Exhibit A to this Agreement.

ARTICLE III

SCHEDULE

3. The Grantee will cause the Eligible Project to be designed, constructed and placed in operation in accordance with the Project Schedule in Exhibit C to this Agreement.

ARTICLE IV

COMPENSATION

4.0. Grant Amount. The total Grant award from the Fund under this Agreement is up to **\$5,012,905.00** and represents the Commonwealth's fifty percent (50%) share of the Total Eligible Project Budget. Any material changes made to the Eligible Project after execution of this Agreement, which alters the Total Eligible Project Budget, will be submitted to the Department for review of grant eligibility. The amount of the Grant award set forth herein may be modified from time to time by agreement of the parties to reflect changes to the Eligible Project or the Total Eligible Project Budget.

4.1. Payment of Grant. Disbursement of the Grant will be in accordance with the payment provisions set forth in Section 4.2 herein and the eligibility determinations made in the Total Project Budget (Exhibit B).

4.2. Disbursement of Grant Funds. The Department will disburse the Grant to the Grantee not more frequently than once each calendar month for approved eligible reimbursement of a minimum of one thousand (\$1,000.00) dollars, excluding the final payment, upon receipt by the Department of the following:

(a) A requisition for approval by the Department, signed by the Authorized Representative and containing all receipts, vouchers, statements, invoices or other evidence that costs in the Total Eligible Project Budget, including the applicable local share for the portion of the Eligible Project covered by such requisition, have been incurred or expended and all other information called for by, and otherwise being in the form of, Exhibit D to this Agreement.

(b) If any requisition includes an item for payment for labor or to contractors, builders or material men, a certificate, signed by the Project Engineer, stating that such work was actually performed or such materials, supplies or equipment were actually furnished or installed in or about the construction of the Eligible Project.

Upon receipt of each such requisition and accompanying certificate(s) and schedule(s), the Department shall request disbursement of the Grant to the Grantee in accordance with such requisition to the extent approved by the Department.

Except as may otherwise be approved by the Department, disbursements shall be held at ninety-five percent (95%) of the total Grant amount to ensure satisfactory completion of the Eligible Project. Satisfactory completion includes the submittal to the Department the Responsibilities & Maintenance Plan required by Section 5.1 herein. Upon receipt from the Grantee of the certificate specified in Section 4.5 and a final requisition detailing all retainage to which the Grantee is then entitled, the Department, subject to the provisions of this section and Section 4.3 herein, shall request disbursement to the Grantee of the final payment from the Grant.

4.3 Application of Grant Funds. The Grantee agrees to apply the Grant solely and exclusively to the reimbursement of Eligible Project Costs. The Grantee represents and warrants that the average reasonably expected economic life of the assets to be financed with the Grant is set forth in Exhibit E attached hereto.

4.4. Agreement to Complete Project. The Grantee agrees to cause the Eligible Project to be designed and constructed, as described in Exhibit A to this Agreement, and in accordance with (i) the schedule in Exhibit C to this Agreement and (ii) plans and specifications prepared by the Project Engineer and approved by the Department.

4.5 Notice of Substantial Completion. When the Eligible Project has been completed, the Grantee shall promptly deliver to the Department a certificate signed by the Authorized Representative and by the Project Engineer stating (i) that the Eligible Project has been completed substantially in accordance with the approved plans and specifications and addenda thereto, and in substantial compliance with all material applicable laws, ordinances, rules, and regulations; (ii) the date of such completion; (iii) that all certificates of occupancy and operation necessary for start-up for the Eligible Project have been issued or obtained; and (iv) the amount, if any, to be released for payment of the final Eligible Project Costs.

4.6 Source of Grant Funds; Reliance. The Grantee represents that it understands that the Grant funds are derived from the proceeds of the VPBA Bonds, the interest on which must remain excludible from gross income for federal income tax purposes (that is, "tax- exempt") pursuant to contractual covenants made by VPBA for the benefit of the owners of the VPBA Bonds. The Grantee further represents that (a) the undersigned Authorized Representative of the Grantee has been informed of the purpose and scope of Sections 103 and 141-150 of the Internal Revenue Code of 1986, as amended, as they relate to the VPBA Bonds and the Grant, and (b) the representations and warranties contained in this Agreement can be relied on by VPBA and bond counsel to VPBA in executing certain documents and rendering certain opinions in connection with the VPBA Bonds.

ARTICLE V
RESPONSIBILITIES AND MAINTENANCE PLAN

5.0 Plan Submittal. No later than thirty (30) days from the date of the Notice of Substantial Completion, the Grantee shall submit to the Department a Responsibilities and Maintenance Plan for the Eligible Project.

5.1 Plan Elements. The plan required by Section 5.0 shall include a description of the project type, a recommended schedule of inspection and maintenance, and the identification of a person, persons or position within an organization responsible for administering and maintaining the plan for the useful service life of the installed facilities. If the Eligible Project includes construction on private property, the plan shall document the Grantee's right to access the Eligible Project for purposes of implementing the plan required by Section 5.0.

5.2 Recordation. Long-term responsibility and maintenance requirements for stormwater management facilities located on private property shall be set forth in an instrument recorded in the local land records and shall be consistent with 9VAC25-870-112 of the Virginia Stormwater Management Program (VSMP) Permit Regulations.

ARTICLE VI
MATERIAL BREACH

6.0. Material Breach. Any failure or omission by the Grantee to perform its obligations under this Agreement, unless excused by the Department, is a material breach.

6.1. Notice of Material Breach. If at any time the Grantee determines that it is unable to perform its obligations under this Agreement, the Grantee shall promptly provide written notification to the Department. This notification shall include a statement of the reasons it is unable to perform, any actions to be taken to secure future performance and an estimate of the time necessary to do so.

6.2. Monetary Assessments for Breach. In case of Material Breach, Grant funds will be re-paid into the State Treasury and credited to the Fund. Within 90 days of receipt of written demand from the Department, the Grantee shall re-pay the Grant funds for the corresponding material breaches of this Agreement unless the Grantee asserts a defense pursuant to the requirements of Section 6.3 herein.

6.3 Extraordinary Conditions.

(a) The Grantee may assert and it shall be a defense to any action by the Department to collect Grant funds or otherwise secure performance of this Agreement that the alleged non-performance was due to Extraordinary Conditions, provided that the Grantee:

(1) takes reasonable measures to effect a cure or to minimize any non-performance with the Agreement, and

(2) provides written notification to the Department of the occurrence of Extraordinary Conditions, together with an explanation of the events or circumstances contributing to such Extraordinary Conditions, no later than 10 days after the discovery of the Extraordinary Conditions.

(b) If the Department disagrees that the events or circumstances described by the Grantee constitute Extraordinary Conditions, the Department must provide the Grantee with a written objection within sixty (60) days of Grantee's notice under paragraph 6.3(a)(2), together with an explanation of the basis for its objection.

6.4 Resolution and Remedy. If no resolution is reached by the parties, the Department may immediately bring an action in the Circuit Court of the City of Richmond to recover part or all of the Grant funds. In any such action, the Grantee shall have the burden of proving that the alleged noncompliance was due to Extraordinary Conditions. The Grantee agrees to venue to any such action in the Circuit Court of the City of Richmond, either north or south of the James River in the option of the Department.

6.5 Indemnification. To the extent permitted by law and subject to legally available funds, the Grantee shall indemnify and hold the Department, the Fund, VPBA and the owners of the VPBA Bonds, and their respective members, directors, officers, employees, attorneys and agents (the "Indemnitees"), harmless against any and all liability, losses, damages, costs, expenses, penalties, taxes, causes of action, suits, claims, demands and judgments of any nature arising from or in connection with any misrepresentation, breach of warranty, noncompliance or default by or on behalf of the Grantee under this Agreement, including, without limitation, all claims or liability (including all claims of and liability to the Internal Revenue Service) resulting from, arising out of or in connection with the loss of the excludability from gross income of the interest on all or any portion of the VPBA Bonds that may be occasioned by any cause whatsoever pertaining to such misrepresentation, breach, noncompliance or default, such indemnification to include the reasonable costs and expenses of defending itself or investigating any claim of liability and other reasonable expenses and attorneys' fees incurred by any of the Indemnitees in connection therewith. This paragraph shall not constitute an express or implied waiver of any applicable immunity afforded the Grantee.

ARTICLE VII

GENERAL PROVISIONS

7.0. Effect of the Agreement on Permits. This Agreement shall not be deemed to relieve the Grantee of its obligations to comply with the terms of its Virginia Pollutant Discharge Elimination System (VPDES) and/or Virginia Water Protection (VWP) permit(s) issued by the Board. This Agreement does not obviate the need to obtain, where required, any other State or Federal permit(s).

7.1. Disclaimer. Nothing in this Agreement shall be construed as authority for either party to make commitments which will bind the other party beyond the covenants contained herein.

7.2. Non-Waiver. No waiver by the Department of any one or more defaults by the Grantee in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default or defaults of whatever character.

7.3. Integration and Modification. This Agreement constitutes the entire Agreement between the Grantee and the Department. No alteration, amendment or modification of the provisions of this Agreement shall be effective unless reduced to writing, signed by both the parties and attached hereto. This Agreement may be modified by agreement of the parties for any purpose, provided that any significant modification to this Agreement must be preceded by public notice of such modification.

7.4. Collateral Agreements. Where there exists any inconsistency between this Agreement and other provisions of collateral contractual agreements which are made a part of this Agreement by reference, the provisions of this Agreement shall control.

7.5. Non-Discrimination. In the performance of this Agreement, the Grantee warrants that it will not discriminate against any employee, or other person, on account of race, color, sex, religious creed, ancestry, age, national origin or other non-job related factors. The Grantee agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

7.6. Conflict of Interest. The Grantee warrants that it has fully complied with the Virginia Conflict of Interest Act as it may apply to this Agreement.

7.7. Applicable Laws. This Agreement shall be governed in all respects whether as to validity, construction, capacity, performance or otherwise, by the laws of the Commonwealth of Virginia. The Grantee further agrees to comply with all laws and regulations applicable to the Grantee's performance of its obligations pursuant to this Agreement.

7.8. Records Availability. The Grantee agrees to maintain complete and accurate books and records of the Eligible Project Costs, and further, to retain all books, records, and other documents relative to this Agreement for three (3) years after final payment. The Department, its authorized agents, and/or State auditors will have full access to and the right to examine any of said materials during said period. Additionally, the Department and/or its representatives will have the right to access work sites during normal business hours, after reasonable notice to the Grantee, for the purpose of ensuring that the provisions of this Agreement are properly carried out.

7.9. Severability. Each paragraph and provision of this Agreement is severable from the entire Agreement; and if any provision is declared invalid, the remaining provisions shall nevertheless remain in effect.

7.10. Notices. All notices given hereunder shall be in writing and shall be sent by United States certified mail, return receipt requested, postage prepaid, and shall be deemed to have been received at the earliest of: (a) the date of actual receipt of such notice by the addressee, (b) the date of the actual delivery of the notice to the address of the addressee set forth below, or (c) five (5) days after the sender deposits it in the mail properly addressed. All notices required or permitted to be served upon either party hereunder shall be directed to:

Department: Virginia Department of Environmental Quality
Clean Water Financing and Assistance Program
P.O. Box 1105
Richmond, VA 23218
Attn: CWFAP Program Manager

Fairfax County, Virginia

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Grantee: County of Fairfax, Virginia
12000 Government Center Parkway
Fairfax, Virginia 22035-0052
Attn: Mr. Craig Carinci

7.11. Successors and Assigns Bound. This Agreement shall extend to and be binding upon the parties hereto, and their respective legal representatives, successors and assigns.

7.12. Exhibits. All exhibits to this Agreement are incorporated herein by reference.

7.13. Termination. The Agreement shall terminate upon final reimbursement to the Grantee.

ARTICLE VIII **COUNTERPARTS**

8. This Agreement may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

ARTICLE IX **CREDIT GENERATION**

9. Any land area generating stream or wetland mitigation credits from the Eligible Project is not eligible for the generation of any other environmental credits. Any project designs approved by the Department under the Grant may not meet the design requirements for approval from other State or Federal water programs. The Grantee is responsible for obtaining information on design and permit requirements for the type of environmental credit they are seeking.

WITNESS the following signatures, all duly authorized.

DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____

Its: _____

Date: _____

GRANTEE'S AUTHORIZED REPRESENTATIVE

By: _____

Its: _____

Date: _____

EXHIBIT A

ELIGIBLE PROJECT DESCRIPTION

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05

Project Description:

1. Wakefield Park – Accotink Tributary North (AC 9232): Restoration of approximately 870 linear feet of impaired stream channel.
2. Wakefield Park – Accotink Tributary South (AC 9210): Restoration of approximately 2,700 linear feet of impaired stream channel.
3. Paul Spring – Restoration of approximately 600 linear feet of impaired stream channel.
4. Colony Park – Restoration of approximately 300 linear feet of stream channel including the retrofit of two (2) dry detention basins to constructed wetlands.
5. Accotink Tributary at Davenport – Restoration of approximately 335 linear feet of impaired stream channel.
6. Difficult Run at Oakton Estates – Restoration of approximately 300 linear feet of impaired stream channel.
7. Inverchapel Road Outfall Repair and Stream Restoration – Restoration of approximately 175 linear feet of impaired stream channel.
8. Flatlick Branch (Phase 1) Stream Restoration – Restoration of approximately 1,850 linear feet of impaired stream channel.

Fairfax County, Virginia

EXHIBIT B

TOTAL PROJECT BUDGET

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05

The following budget reflects the estimated costs associated with eligible cost categories of the project.

Project Category / Project Name	Project Cost	Note	Grant %	Grant Amount
Design Engineering				
Wakefield Park - Accotink North (AC 9232)	\$396,428.14		50.00%	\$198,214.07
Wakefield Park - Accotink South (AC 9210)	\$768,872.17		50.00%	\$384,436.09
Paul Spring	\$227,236.91		50.00%	\$113,618.46
Colony Park	\$159,718.44		50.00%	\$79,859.22
Accotink at Daventry	\$275,262.20		50.00%	\$137,631.10
Difficult Run at Oakton Estates	\$94,326.29		50.00%	\$47,163.15
Inverchapel Road Outfall	\$0.00		50.00%	\$0.00
Flatlick Branch (Phase 1)	\$567,315.99		50.00%	\$283,658.00
Sub-Total	\$2,489,160.14			\$1,244,580.07
Construction				
Wakefield Park - Accotink North (AC 9232)	\$893,431.60		50.00%	\$446,715.80
Wakefield Park - Accotink South (AC 9210)	\$2,315,527.70		50.00%	\$1,157,763.85
Paul Spring	\$417,481.04		50.00%	\$208,740.52
Colony Park	\$552,187.29		50.00%	\$276,093.65
Accotink at Daventry	\$334,486.44		50.00%	\$167,243.22
Difficult Run at Oakton Estates	\$184,613.60		50.00%	\$92,306.80
Inverchapel Road Outfall	\$195,017.62		50.00%	\$97,508.81
Flatlick Branch (Phase 1)	\$2,406,708.54		50.00%	\$1,203,354.27
Sub-Total	\$7,299,453.83			\$3,649,726.92
Other				
Contingency				
Wakefield Park - Accotink North (AC 9232)	\$44,671.58		50.00%	\$22,335.79
Wakefield Park - Accotink South (AC 9210)	\$115,776.39		50.00%	\$57,888.20
Paul Spring	\$20,874.05		50.00%	\$10,437.03
Colony Park	\$27,609.36		50.00%	\$13,804.68
Accotink at Daventry	\$16,724.32		50.00%	\$8,362.16
Difficult Run at Oakton Estates	\$9,230.68		50.00%	\$4,615.34
Inverchapel Road Outfall	\$9,750.88		50.00%	\$4,875.44
Flatlick Branch (Phase 1)	\$120,335.42		50.00%	\$60,167.71
Sub-Total	\$364,972.68			\$182,486.34
TOTALS	\$10,153,586.65			\$5,076,793.33

Fairfax County, Virginia

EXHIBIT C

PROJECT SCHEDULE

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05

The Grantee has proposed the following schedule of key activities/milestones as a planning tool which may be subject to change. Unless authorized by a grant modification, it is the responsibility of the Grantee to adhere to the anticipated schedule for the Eligible Project as follows:

Project Name	Project Description / Milestone	Schedule / Timeline	Note
Wakefield Park – Accotink North	Stream Restoration / Engineering	Complete	
	Commence Construction	November 2015 / 15 months	
Wakefield Park – Accotink South	Stream Restoration / Engineering	Complete	
	Commence Construction	November 2015 / 15 months	
Paul Spring	Stream Restoration / Engineering	Complete	
	Commence Construction	April 2015 / 5 months	
Colony Park	Stream Restoration – BMP Retrofit / Engineering	Complete	
	Commence Construction	September 2015 / 6 months	
Accotink at Daventry	Stream Restoration / Engineering	Complete	
	Commence Construction	April 2015 / 4 months	
Difficult Run at Oakton Estates	Stream Restoration / Engineering	Complete	
	Commence Construction	April 2015 / 4 months	
Inverchapel Road Outfall	Stream Restoration / Engineering	Complete	
	Commence Construction	October 2015 / 3 months	
Flatlick Branch (Phase 1)	Stream Restoration / Engineering	Complete	
	Commence Construction	November 2015 / 9 months	

Fairfax County, Virginia

EXHIBIT D

REQUISITION FOR REIMBURSEMENT

(To be on Grantee's Letterhead)

Department of Environmental Quality
Clean Water Financing and Assistance Program
P.O. Box 1105
Richmond, VA 23218
Attn.: CWFAP Program Manager

RE: Stormwater Local Assistance Fund Grant

SLAF Grant No.: 15-05

Dear Program Manager:

This requisition, Number _____, is submitted in connection with the referenced Grant Agreement, dated as of *[insert date of grant agreement]* between the Virginia Department of Environmental Quality and _____. Unless otherwise defined in this requisition, all capitalized terms used herein shall have the meaning set forth in Article I of the Grant Agreement. The undersigned Authorized Representative of the Grantee hereby requests disbursement of grant proceeds under the Grant Agreement in the amount of \$_____, for the purposes of payment of the Eligible Project Costs as set forth on Schedule I attached hereto.

Copies of invoices relating to the items for which payment is requested are attached.

The undersigned certifies that the amounts requested by this requisition will be applied solely and exclusively to the reimbursement of the Grantee for the payment of Eligible Project Costs that are Capital Expenditures.

This requisition includes (if applicable) an accompanying Certificate of the Project Engineer as to the performance of the work.

Sincerely,

(Authorized Representative of the Grantee)

Attachments

Fairfax County, Virginia

SCHEDULE 1
STORMWATER LOCAL ASSISTANCE FUND
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

REQUISITION # _____

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05 CERTIFYING SIGNATURE: _____ TITLE: _____

➤ Schedule 1 continued on next page.

Fairfax County, Virginia

Cost Category	Total Project Budget	SLAF Eligible Project Budget	SLAF 50% Grant Budget	Eligible Expenditures This Period	Current Grant Payment	Previous Grant Payment	Total Grant Payments to Date	SLAF Grant Balance
Engineering								
Wakefield Park - Accotink North	\$396,428.14	\$317,818.00	\$158,909.00					
Wakefield Park - Accotink South	\$768,872.17	\$768,874.00	\$384,437.00					
Paul Spring	\$227,236.91	\$227,238.00	\$113,619.00					
Colony Park	\$159,718.44	\$159,720.00	\$79,860.00					
Accotink at Davenport	\$275,262.20	\$275,264.00	\$137,632.00					
Difficult Run at Oakton Estates	\$94,326.29	\$94,328.00	\$47,164.00					
Inverchapel Road Outfall	\$0.00	\$0.00	\$0.00					
Flatlick Branch (Phase 1)	\$567,315.99	\$567,316.00	\$283,658.00					
Sub-Total	\$2,489,160.14	\$2,410,558.00	\$1,205,279.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Construction								
Wakefield Park - Accotink North	\$893,431.60	\$893,432.00	\$446,716.00					
Wakefield Park - Accotink South	\$2,315,527.70	\$2,315,528.00	\$1,157,764.00					
Paul Spring	\$417,481.04	\$417,482.00	\$208,741.00					
Colony Park	\$552,187.29	\$552,188.00	\$276,094.00					
Accotink at Davenport	\$334,486.44	\$334,488.00	\$167,244.00					
Difficult Run at Oakton Estates	\$184,613.60	\$184,614.00	\$92,307.00					
Inverchapel Road Outfall	\$195,017.62	\$195,018.00	\$97,509.00					
Flatlick Branch (Phase 1)	\$2,406,708.54	\$2,406,710.00	\$1,203,355.00					
Sub-Total	\$7,299,453.83	\$7,299,460.00	\$3,649,730.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other								
Contingency								
Wakefield Park - Accotink North	\$44,671.58	\$0.00	\$0.00					
Wakefield Park - Accotink South	\$115,776.39	\$115,778.00	\$57,889.00					
Paul Spring	\$20,874.05	\$20,876.00	\$10,438.00					
Colony Park	\$27,609.36	\$23,092.00	\$11,546.00					
Accotink at Davenport	\$16,724.32	\$16,726.00	\$8,363.00					
Difficult Run at Oakton Estates	\$9,230.68	\$9,232.00	\$4,616.00					
Inverchapel Road Outfall	\$9,750.88	\$9,752.00	\$4,876.00					
Flatlick Branch (Phase 1)	\$120,335.42	\$120,336.00	\$60,168.00					
Sub-Total	\$364,972.68	\$315,792.00	\$157,896.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Totals	\$10,153,586.65	\$10,025,810.00	\$5,012,905.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

➤ Schedule 1 continued on next page.

Fairfax County, Virginia

Total Grant Amount: \$5,012,905.00
Previous Disbursements: \$
This Request: \$
Grant Proceeds Remaining: \$

Notes:

1. Wakefield Park - Accotink North (AC9232): Engineering costs have been reduced, including no SLAF contingency funds, in order to meet the SLAF Grant funding cap of \$605,625.00.
2. Colony Park - SLAF contingency funds have been reduced to meet the SLAF Grant funding cap of \$367,500.00

Fairfax County, Virginia

CERTIFICATE OF THE PROJECT ENGINEER
FORM TO ACCOMPANY REQUEST FOR REIMBURSEMENT

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05

This Certificate is submitted in connection with Requisition Number _____, dated _____, 20__, submitted by the _____ (the "Grantee") to the Virginia Department of Environmental Quality. Capitalized terms used herein shall have the same meanings set forth in Article I of the Grant Agreement referred to in the Requisition.

The undersigned Project Engineer for _____ hereby certifies that insofar as the amounts covered by this Requisition include payments for labor or to contractors, builders or material men, such work was actually performed or such materials, supplies, or equipment were actually furnished to or installed in the Eligible Project.

(Project Engineer)

(Date)

Fairfax County, Virginia

EXHIBIT E

DETERMINATION OF AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Grantee: County of Fairfax, Virginia

SLAF Grant No.: 15-05

The Internal Revenue Code of 1986, as amended, limits the length of average maturity for certain tax-exempt bonds, such as the VPBA Bonds, to no more than 120% of the average reasonably expected economic life of the assets being financed with the proceeds of such bonds. This life is based on Revenue Procedure 62-21 as to buildings and Revenue Procedures 83-35 and 87-56 as to equipment and any other assets. In this Exhibit, the Grantee will certify as to the average reasonably expected economic life of the assets being financed by the Grant.

Please complete the attached chart as follows:

Step 1. Set forth in Column II the corresponding total cost of each type of asset to be financed with the Grant.

Step 2. Set forth in Column III the economic life of each type of asset listed in accordance with the following:

Land. Exclude the acquisition of any land financed with a portion of the Grant funds from the economic life calculation.

Land Improvements. Land improvements (i.e., depreciable improvements made directly to or added to land) include sidewalks, roads, canals, waterways, site drainage, stormwater retention basins, drainage facilities, sewers (excluding municipal sewers), wharves and docks, bridges, fences, landscaping, shrubbery and all other general site improvements, not directly related to the building. Buildings and structural components are specifically excluded. 20 years is the economic life for most stormwater projects.

Buildings. Forty years is the economic life for most buildings.

Equipment. Please select an Asset Depreciation Range ("ADR") midpoint or class life for each item of equipment to be financed. The tables of asset guideline classes, asset guideline periods and asset depreciation ranges included in IRS Revenue Procedures 83-35 and 87-56 may be used for reference. To use the tables, you should first determine the asset guideline class in which each item of equipment falls. General business assets fall into classes 00.11 through 00.4 to the extent that a separate class is provided for them. Other assets, to the extent that a separate class is provided, fit into one or more of classes 01.1 through 80.0. Subsidiary assets (jigs, dies, molds, patterns, etc.) are in the same class as are the other major assets in an industry activity unless the subsidiary assets are classified separately for that industry. Each item of equipment should be classified according to the activity in which it is primarily used. If the equipment is not described in any asset guideline class, its estimated economic life must be determined on a case by case basis.

Contingency. Any amounts shown on the Project Budget as "contingency" should be assigned to the shortest-lived asset. For example, contingency for a stormwater project should likely be given an economic life of 20 years.

Fairfax County, Virginia

Step 3. Set forth in Column IV the date each asset is expected to be placed in service. An asset is first placed in service when it is first placed in a condition or state of readiness and available for a specifically assigned function. For example, the placed in service date for a stormwater project is likely the project's expected completion date.

Step 4. Determine the adjusted economic life of the asset in Column V by adding the amount of time between February 21, 2013 (the earliest date upon which the VPBA Bonds were issued) and the specified placed in service date from Column IV. For example, if a stormwater project with an economic life of 20 years will be placed in service 2 years after February 21, 2013, then the adjusted economic life for such stormwater project should be 22.

Step 5. For Column VI, multiply the Total Costs Financed with the Grant from Column II by the Adjusted Economic Life from Column V for each type of asset.

Step 6. Total all the entries in Column II and in Column VI.

Step 7. Divide the total of Column VI by the total of Column II. The quotient is the average reasonable expected economic life of the assets to be financed with the Grant.

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Wakefield Park – Accotink North

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	605,625	20	2/28/2017	24	14,535,000
Building					
Equipment					
Contingency	0	20	2/28/2017	24	0
TOTAL	<u>\$ 605,625</u>				<u>\$ 14,535,000</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 24

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Wakefield Park – Accotink South

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	1,542,201	20	2/28/2017	24	37,012,824
Building					
Equipment					
Contingency	57,889	20	2/28/2017	24	1,389,336
TOTAL	<u>\$ 1,600,090</u>				<u>\$ 38,402,160</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 24

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Paul Spring

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	322,360	20	9/10/2015	22.6	7,279,963
Building					
Equipment					
Contingency	10,438	20	9/10/2015	22.6	235,725
TOTAL	<u>\$ 332,798</u>				<u>\$ 7,515,688</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 22.6

Fairfax County, Virginia

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Colony Park

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	355,954	20	2/28/2016	23	8,186,942
Building					
Equipment					
Contingency	11,546	20	2/28/2016	23	265,558
TOTAL	<u>\$ 367,500</u>				<u>\$ 8,452,500</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 23

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Accotink at Daventry

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	304,876	20	1/30/2016	23	7,012,148
Building					
Equipment					
Contingency	8,363	20	1/30/2016	23	192,349
TOTAL	<u>\$ 313,239</u>				<u>\$ 7,204,497</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 23

Fairfax County, Virginia

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Difficult Run at Oakton Estates

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	139,471	20	6/30/2015	22.3	3,114,852
Building					
Equipment					
Contingency	4,616	20	6/30/2015	22.3	103,091
TOTAL	<u>\$ 144,087</u>				<u>\$ 3,217,943</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 23

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Inverchapel Road Outfall

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	97,509	20	12/15/2015	22.8	2,226,456
Building					
Equipment					
Contingency	4,879	20	12/15/2015	22.8	111,335
TOTAL	<u>\$ 102,385</u>				<u>\$ 2,337,791</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 22.8

Fairfax County, Virginia

AVERAGE REASONABLY EXPECTED ECONOMIC LIFE OF PROJECT ASSETS

Flatlick Branch (Phase I)

Column I	Column II	Column III	Column IV	Column V	Column VI
<u>Asset</u>	<u>Total Cost Financed with Grant</u>	<u>Economic Life</u>	<u>Date Asset Placed in Service</u>	<u>Adjusted Economic Life</u>	<u>Column II x Column V</u>
Land Improvements	1,487,013	20	8/30/2016	23.5	34,944,806
Building					
Equipment					
Contingency	60,168	20	8/30/2016	23.5	1,413,948
TOTAL	<u>\$ 1,547,181</u>				<u>\$ 36,358,754</u>

Average Reasonably Expected Economic Life: Total of Column VI ÷ Total of Column II = 23.5

ACTION - 4

Approval of the Disease Carrying Insects Program

ISSUE:

Board approval of the annual submission of the Disease Carrying Insects Program (DCIP):

(1) West Nile virus (WNV) activities, including disease surveillance, public outreach and education, complaint investigation, contract management, and operational research, will continue throughout the year. Mosquito surveillance and larvicide treatments for monitoring and control of WNV commence with the beginning of the mosquito breeding season in May and continue through October.

(2) Lyme disease and tick-borne disease activities include tick surveillance, public outreach and education, and operational research which will continue throughout the year.

(3) Other disease-transmitting insects of public health importance activities include public outreach and education to occur throughout the year.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors direct staff to take the following actions concerning Fairfax County's Disease Carrying Insects Program:

1. Conduct a countywide, proactive mosquito, West Nile virus, tick and tick borne disease surveillance program that includes human, mosquito and tick surveillance conducted through human case reporting, as well as mosquito and tick trapping and testing.
2. Conduct proactive treatment of storm water catch basins and other mosquito breeding areas in the County using appropriate and approved larvicides, such as Spinosad, *Bacillus thuringiensis* var. *israelensis*, or *Bacillus sphaericus*, according to established biological criteria in as many rounds during the May to October mosquito season as necessary. Currently the program is planned for three rounds of catch basin treatments.
3. Conduct an aggressive community outreach and education program to increase County residents' awareness of mosquitoes, ticks, other disease-transmitting insects, West Nile virus, Lyme disease, and other mosquito- and tick-borne diseases, as well as personal protection and prevention.
4. Monitor and document the number of human WNV and Lyme disease cases in the County to determine the effectiveness of the above measures directed prior to the initiation of more aggressive control actions.
5. If deemed necessary to protect public health, authorize the County

Board Agenda Item
March 1, 2016

Executive to approve further appropriate control measures. At the time prevention actions are extended beyond current methods, a program report will be made to the Board outlining the status of West Nile virus in the County, detailing the extent of control measures, the geographic areas targeted for treatment, and the public information process.

Board action on this item will cover all Disease Carrying Insects Program activities carried out through June 30, 2017.

TIMING:

Board approval is requested on March 1, 2016, in order to (1) continue mosquito suppression strategies (i.e., surveillance, larviciding mosquito breeding areas, and public outreach), (2) continue tick surveillance program and public outreach and (3) initiate outreach and education efforts for other disease-transmitting insects.

BACKGROUND:

The *Code of the County of Fairfax, Virginia* requires the submission of the annual Disease Carrying Insects Program for Board of Supervisors' approval. (Appendix I, Section 7)

West Nile Virus

During 2015, West Nile virus continued to inflict disease and death across the continental United States as anticipated by the Centers for Disease Control and Prevention (CDC). Fairfax County WNV surveillance indicated that the virus was present and widespread throughout most of the County. By the end of the 2015 WNV season (October 2015), the virus had been detected in mosquitoes collected in most of the surveillance stations in the County. Nine human cases were recorded in the County in 2015. Four fatal cases in the County since 2002 underlie the severity of this disease. Many factors have been suggested as influencing the presence of human cases in the County:

1. Viral activity in the mosquito vectors as found in the surveillance efforts;
2. Presumed feeding habits of *Culex pipiens*;
3. Birds acting as natural amplifiers of the virus;
4. Ambient temperatures which influence the development of the virus within the mosquito;
5. Increased public awareness resulting in increased use of personal protection measures; and
6. Proactive treatments of the storm drain catch basins with mosquito larvicides.

The DCIP continued to maintain intense surveillance and treatment activities in the

Board Agenda Item
March 1, 2016

Huntington area as a follow-up to the various flooding incidents that have occurred there. The results of the mosquito surveillance in this area indicate the need to maintain an increase in the rate of catch basin treatments in the area.

Based on past surveillance information, the DCIP will continue storm drain catch basin larviciding activities, as was done in the 2015 mosquito season. The DCIP will initiate treatment in mid-May and continue at approximately six-week intervals for the duration of the season. Larviciding will also be done in targeted areas that are identified as a result of the larval surveillance activities.

As in 2015, mosquito surveillance will be carried out by County staff. The County began performing these surveillance activities in 2004 in lieu of contracted services, as County staff could do it more comprehensively and cost-effectively. This WNV season (May to October 2015), County staff will continue to carry out all mosquito surveillance activities. The Fairfax County Health Department's Epidemiology and Communicable Disease Unit will continue to carry out human case surveillance. The Mosquito Surveillance and Management Subcommittee, a group with representatives from multiple County agencies as well as other jurisdictions covered by the program, will meet three times this year to ensure an aggressive response to WNV, in order to reduce the impact of the virus on County residents.

The Health Department Laboratory began testing mosquitoes using molecular diagnostics during the 2012 mosquito season. In 2016, all mosquito (WNV) testing and some tick testing will be performed by the Health Department Laboratory.

All insecticides used in this program, including the biological larvicides, are registered with the U.S. EPA and sanctioned for use by the Commonwealth of Virginia. The principal larvicides that the County will use are Spinosad, *Bacillus thuringiensis* var. *israelensis*, and *Bacillus sphaericus*, which are among the most environmentally-friendly larvicides available.

The DCIP will continue to utilize an active and engaging outreach and education strategy. The program will also focus messaging to address at-risk groups, such as residents over 50 years of age who are at greater risk of developing a more severe form of the West Nile virus. The program will also continue to seek out new ways to deliver its public health messages to the County's diverse population. In 2015, the DCIP's outreach activities included the preparation and production of another 18-month calendar full of educational information that was widely distributed to County residents, as well as a children's storybook promoting mosquito and tick awareness.

The Disease Carrying Insects Program's "2015 Annual Report and Comprehensive Plan of Action for 2016" (Attachment 1) reviews the 2015 season activities and presents wide-

ranging plans for minimizing the impact and risk of mosquito-borne diseases through:

1. Countywide monitoring of WNV activity including mosquito and human surveillance;
2. An integrated approach to mosquito management and control practices which will primarily target those mosquito species that have been shown to be the most probable WNV vectors in the County;
3. An aggressive and intensive community outreach and education program to increase awareness of mosquitoes and WNV in County residents; and
4. A continuation of the multi-jurisdictional and multi-agency collaboration efforts to identify ways to minimize the risk of WNV transmission.

The Chikungunya virus (CHIKV) and the Zika virus (ZIKAV), which are transmitted by Aedes mosquitoes, began circulating in the Americas in 2013 and 2015, respectively. Locally-acquired cases of both viruses have been reported in many countries in the Americas. The CDC reports that cases have been reported in returning travelers but the viruses are not currently being transmitted in the United States. However, Florida did report a few cases of locally-acquired CHIKV in 2014. If there are locally-acquired cases of CHIKV or ZIKAV in the County, the Health Department will utilize guidance from the CDC and VDH as well as the document "Preparedness and Response for Chikungunya Virus Introduction in the Americas" published by the CDC and Pan American Health Organization (PAHO). Brochures about CHIKV and ZIKAV are in development.

Tick-Borne Disease

During 2015, Lyme disease continued to be a major concern for County residents and it was the most frequently-reported vector-borne disease in the County. Tick surveillance efforts in the County have indicated that the bacterium that causes Lyme disease was present and widespread throughout most of the County. The Health Department recorded and reported 190 cases of Lyme disease in Fairfax County in 2015. Some of the factors that influence human cases in the County include:

1. Presence of the Lyme disease-causing bacteria in the black-legged (deer) tick vectors, as found in the surveillance efforts;
2. White-footed mice acting as natural amplifiers of the bacteria;
3. Very large deer populations that act as a tick transport system, distributing the ticks throughout the County, as well as a source of blood for the females to develop their eggs; and
4. Increased public awareness resulting in increased use of personal protection measures.

Based on this information, Health Department staff plan to perform tick surveillance, tick ID service, collections from veterinary clinics, collections from deer hunts, and human case surveillance in 2016.

Board Agenda Item
March 1, 2016

The Disease Carrying Insects Program will continue to include tick prevention and personal protection from ticks in its outreach and education strategy. The DCIP's "2015 Annual Report and Comprehensive Plan of Action for 2016" (Attachment 1) reviews the 2015 season activities and presents wide-ranging plans for minimizing the impact and risk of tick-borne diseases through:

1. Countywide surveillance for the presence of Lyme disease and other tick-borne pathogens, including black-legged (deer) tick and human surveillance;
2. An aggressive and intensive community outreach and education program to increase tick and Lyme disease awareness in the County;
3. A continuation of the multi-jurisdictional and multi-agency collaboration efforts to identify ways to minimize the risk of Lyme disease transmission.

Other Disease-transmitting Insects of Public Health Importance

The DCIP's "2015 Annual Report and Comprehensive Plan of Action for 2016" presents plans for minimizing the impact and risk of other diseases transmitted by insects through:

1. An aggressive and intensive community outreach and education program to increase awareness of other insects that may transmit diseases of public health importance.

FISCAL IMPACT:

The Disease Carrying Insects Program is primarily funded by a Special Service District for the Control of Infestations that May Carry a Disease that is Dangerous to Humans, Gypsy Moth, Fall Cankerworm, and Certain Identified Pests of \$0.001 per \$100 of assessed value and is budgeted in Fund 40080, Integrated Pest Management Program. Current planned program activities include vector surveillance, mosquito larviciding, and public education and outreach as described in Attachment 1. No additional funding is required as the current funding level is sufficient to meet anticipated program needs.

ENCLOSED DOCUMENTS:

Attachment 1 - Disease Carrying Insects Program 2015 Annual Report and Comprehensive Plan of Action for 2016

STAFF:

Pat Harrison, Deputy County Executive
Gloria Addo-Ayensu, MD, MPH, Director of Health
Pieter Sheehan, Director of Division of Environmental Health

Disease Carrying Insects Program

Maintaining a Sustainable Surveillance Program

I. Mosquito and West Nile Virus Surveillance
2015 Annual Report and Comprehensive Plan for 2016

II. Tick and Tick-borne Disease Surveillance
2015 Annual Report and Comprehensive Plan for 2016

III. Other Disease-transmitting Insects of Public Health
Importance
Comprehensive Plan for 2016

Presented by

Gloria Addo-Ayensu, MD, MPH
Director of Health
Fairfax County
for the Division of Environmental Health
Disease Carrying Insects Program

March 2016



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This information can be made available in an alternative format upon request. Please call 703-246-2300 / TTY 711. Allow seven working days for preparation of the material.

Executive Summary

I. Mosquito and West Nile Virus Surveillance 2015 Report and Comprehensive Plan for 2016

North America continued to experience the effects of West Nile virus (WNV) in 2015 with cases and deaths throughout the country. During 2015, at least 2,060 human cases with 119 deaths were reported in the U.S.¹ There were 21 human cases and one death reported in Virginia in 2015. Nine human cases including one death were reported in Fairfax County in 2015. The national report is not finalized at the time of this report. From 2002 to present, there have been 46 human WNV cases, including four deaths, reported in Fairfax County.

This document reviews activities for 2015 and presents a surveillance plan for 2016 that will monitor mosquito populations to aid in minimizing the risk of WNV. The emphasis of the 2016 program will continue to be on surveillance, community outreach and public education, and a proactive larviciding program.

Mosquito Surveillance

The program is anchored by a strong surveillance component that will monitor mosquito populations during the 2016 mosquito season for possible increases in vector abundance and viral activity. It is important to note that absolute high numbers of mosquitoes do not necessarily reflect high risk of human infection with WNV. Mosquitoes were collected during 3,663 routine trap periods in the 2015 season. A trap period was defined as 24 hours since some traps collected mosquitoes that were active during the day and others collected mosquitoes that were active at night. During the 2015 mosquito surveillance season, 131,811 mosquitoes were collected in all routine trapping activities. Of that total, 111,781 mosquitoes were tested in 3,742 mosquito pools (this included mosquitoes collected in Fort Belvoir and mosquitoes collected outside of normal routine surveillance activities), and 479 were positive for WNV.

Risk Communication, Community Outreach and Public Education

Fairfax County will continue to emphasize personal protection measures from mosquito bites and mosquito and West Nile virus prevention and control. This is done through distribution of informational materials, media interviews, advertising, Web pages, presentations, and collaborations with community groups and homeowners associations.

The eleventh 18-month “Fight the Bite” calendar was produced in 2015. The calendar included colorful and creative graphics, captions, facts, figures, important dates, and helpful hints for backyard mosquito and tick management, personal protection, and

¹ Data to January 12, 2016, obtained from CDC web site on February 2, 2016, not the final report.

information about WNV and Lyme disease. A seventh children's storybook was created and printed in 2015. The calendar, storybook, and other materials were distributed in various venues throughout the County, including libraries and recreation centers.

Human Case Surveillance

West Nile virus is one of over 70 notifiable diseases and conditions in Virginia. The Fairfax County Health Department (FCHD) uses enhanced passive surveillance to monitor physician and laboratory reporting of WNV. The Health Department encourages physicians and laboratories to report cases of WNV by educating medical practitioners about the importance of reporting arboviral infections and by contacting key medical staff at hospital centers to inquire about potential cases of WNV.

Reported WNV cases are classified as either West Nile fever or neuroinvasive WNV according to the case definition. In 2015, there were nine cases of WNV reported in Fairfax County. Six of those cases were classified as neuroinvasive cases. There was one WNV-related death reported in 2015.

Environmental Considerations

Air temperature, photoperiod and rainfall affect mosquito development. As in previous years, these factors were monitored in 2015 to better understand the relationship between climate and vector-borne diseases.

Source Reduction

The FCHD continued to promote source reduction (elimination of mosquito breeding sites) in 2015 through the outreach campaign. During 30 site visits and inspections, the Disease Carrying Insects Program (DCIP) educated property owners and managers about the benefits of eliminating breeding sites and/or provided Mosquito Dunks®.

Larval Mosquito Control

Stormwater storm drains (sometimes called catch basins) are located throughout the County and are typically constructed to ensure proper drainage. However, some still hold water and can be important breeding sites for mosquitoes. During the 2015 season, a total of 59,084 storm drains were treated over three treatment cycles. From June to October, all the catch basins in the Huntington neighborhood of the Mount Vernon district, which floods periodically, were treated on a weekly basis. In 2016, storm drains will be treated in programmed cycles aimed at reducing *Culex pipiens* mosquito populations, as has been done in previous years. The first cycle will begin in May 2016, and the number and magnitude of each cycle will be dependent on climatic factors and mosquito surveillance results. A new larvicide, Natular-G was used in the catch basins in 2012, 2013, and 2015. In 2014, another larvicide (VectoLex™) was used. Insecticide rotation will lower the risk of resistance to insecticides which could occur by using the same larvicide every year.

National Pollutant Discharge Elimination System (NPDES), Virginia Pollutant Discharge Elimination System (VPDES) and DCIP plan to employ the nine best management practices components of the Pesticide Discharge Management Plan (PDMP) as part of the operative VPDES permit. (See Appendix 2)

Operational Research

The Fairfax County Health Department conducts operational research and incorporates significant findings into routine actions. This operational research allows the program to keep up and maintain the latest and most advanced methods and techniques to address the related issues.

Adult Mosquito Control

A timely response to surveillance findings can reduce the overall impact of WNV and prevent human disease. Consistent with Center for Disease Control and Prevention (CDC), Virginia Department of Health (VDH) and Metropolitan Washington Council of Government (MWCOC) guidelines, FCHD will implement an appropriate level of response based on surveillance data. The response levels range from a basic response level to a much heightened response (details are in the 2016 plan of action). In 2015, indicators were low enough not to warrant treating for adult mosquitoes. In 2016, mosquito species, mosquito habitat, weather, time of year and the proximity of infected mosquitoes to human populations will be considered in determining the necessity for adult mosquito control. Any use of adulticides will be under the direction of the County Executive and in coordination with any affected county, city or town within or adjacent to the treatment area.

Other Mosquito-borne Disease

The Chikungunya virus (CHIKV) and the Zika virus (ZIKAV), which are transmitted by *Aedes* mosquitoes, began circulating in the Americas in 2013 and 2015, respectively. Locally-acquired cases of both viruses have been reported in many countries in the Americas. The CDC reports that cases have been reported in returning travelers but the viruses are not currently being transmitted in the United States. However, Florida did report a few cases of locally-acquired CHIKV in 2014. If there are locally-acquired cases of CHIKV or ZIKAV in the County, the Health Department will utilize guidance from the CDC and VDH as well as the document "Preparedness and Response for Chikungunya Virus Introduction in the Americas" published by the CDC and Pan American Health Organization (PAHO). Brochures about CHIKV and ZIKAV are in development.

II. Tick and Tick-Borne Disease Surveillance 2015 Report and Comprehensive Plan for 2016

Background

Fairfax County began tick and Lyme disease surveillance in 2005 with a small pilot program. In light of significant results from the first year of tick surveillance, the DCIP implemented an enhanced surveillance program in subsequent years. In 2015, 2,956

ticks (including 578 blacklegged (deer) ticks) were collected throughout the year using various techniques. As in previous years, tick surveillance and the tick identification service will be conducted by existing staff in the DCIP and will follow previously-established protocols. In 2016, the program will continue its outreach activities as originally requested by the BOS.

Human Case Surveillance

Lyme disease is one of over 70 notifiable diseases and conditions in Virginia. The Fairfax County Health Department (FCHD) uses passive surveillance to monitor physician and laboratory reporting of Lyme disease and other tick-borne diseases. The Health Department encourages physicians and laboratories to report cases of Lyme disease.

Tick Surveillance

Tick surveillance is carried out throughout the year at previously identified sites throughout the County. Tick traps are used at all locations. The DCIP has a contract with an external laboratory to test ticks for pathogens. However, with the establishment of a molecular diagnostic laboratory in the FCHD laboratory tick pathogen testing can now be performed in-house. Results of 2015 tick testing shows that the infection rate of *Borrelia burgdorferi* (the pathogen that causes Lyme disease) in deer ticks is high and other tick species also harbor pathogens. In 2015, we continued collecting ticks from animal clinics and the Fairfax County Animal Shelter. On several occasions, this surveillance method has allowed us to find ticks that we do not find routinely.

Tick Identification Service

The tick identification service that the DCIP offers County residents resulted in the identification of 293 ticks from 317 inquiries. Of the ticks identified 43 (14.7%) were deer ticks, 28 (9.6%) were dog ticks, and 219 (74.7%) were lone star ticks.

Operational Research

The DCIP performs limited operational research within the surveillance program. The tick surveillance data were also used as part of the County's 4-Poster Deer Treatment Station pilot study that was overseen by the Wildlife Biologist's office.

III. Other Disease-transmitting Insects of Public Health Importance, Comprehensive Plan for 2016

Background

Other insects with the potential to transmit disease can be found throughout Fairfax County.

Community Outreach and Public Education

In 2016, the Disease Carrying Insects Program will include other disease-transmitting insects of public health importance, such as cockroaches, in its outreach and education

activities. The outreach model employed by the DCIP will be applied to these insects in order to heighten community awareness.

I. West Nile Virus 2015 Report and Comprehensive Plan for 2016

Background

Public Health Impact

West Nile virus infection causes clinical illness in approximately one-fifth of the people infected. Most of those infected with the virus do not show any clinical symptoms and may never know they were infected. Symptomatic individuals typically experience “West Nile fever,” which includes a relatively mild fever, muscle aches, rash and headache. These cases are often undiagnosed and go unreported. A small percentage of infected persons develop a more significant illness such as meningitis, usually manifesting fever, headache and stiff neck; or encephalitis, which is accompanied with fever, headache and confusion or muscle weakness. Encephalitis, meningitis, and other WNV neuroinvasive illnesses require hospitalization and can be associated with prolonged recovery, disability, and even death. Post-hospitalization follow-up studies of WNV patients (University of Texas) indicate prolonged effects of the disease for up to three years, which may include personality change, depression or subsequent episodes of encephalitis. Treatment of West Nile virus infections is supportive since there is no specific drug that acts against the virus and no human vaccine available.

Primarily an infection of wild birds, WNV is transmitted by the bite of an infected mosquito. The virus has been detected in over 60 different mosquito species in the US, according to the CDC. However, a smaller number of mosquito species are responsible for the on-going maintenance and transmission of the virus. The virus appears to be maintained in house sparrows (*Passer domesticus*). Infected mosquitoes can transmit WNV to birds, humans, and other animals while taking a blood meal. After the virus is ingested by the mosquito, it passes through the stomach wall into the body cavity where it replicates and eventually invades the salivary glands. During blood feeding, the mosquito injects saliva into the host and in this manner the virus is passed to the animal or human, at times, infecting these hosts. It is important to note that most mosquitoes are not infected with WNV.

Since WNV first appeared in the United States in New York City in 1999, it has expanded across the United States. From its initial appearance to the end of 2015, there have been 43,822² cases of WNV human illness in the United States reported to CDC, including 1,884 deaths. During this same time period, Virginia has reported 150 human cases with 11 deaths.

In Fairfax County, WNV was first detected in 2000, when the virus was detected in a dead crow. In 2001, additional infected birds were detected and in 2002, the virus was found in birds, horses, mosquitoes and humans. Since 2002, there have been 46

² Data to January 12, 2016, obtained from CDC web site on February 2, 2016-- not the final report.

human cases of WNV with four fatalities reported in Fairfax County. Nine WNV human cases and one WNV-related fatality were reported in 2015 (Table 1).

Table 1. West Nile Virus Infections in Birds, Mosquitoes, Horses and Humans in Fairfax County, 1999 – 2015.

Year	Birds	Mosquito Pools	Humans	Horses
1999	0	0	0	0
2000	1	0	0	0
2001	54	0	0	0
2002	70*	26	13/1**	3/1**
2003	15*	148	3/0**	2/1**
2004	3&	234	1/1**	0
2005	4&	33	0	0
2006	n/a†	167	3/0**	0
2007	n/a†	469	1/0**	0
2008	n/a†	414	1/0**	0
2009	n/a†	148	1/0	0
2010	n/a†	166	2/0	0
2011	n/a†	124	1/0	0
2012	n/a†	255	8/1	0
2013	n/a†	302	3/0	0
2014	n/a†	220	0/0	0
2015	n/a†	479	9/1	0

*Testing of birds was suspended after 70 positive birds were detected in 2002 and 15 in 2003.

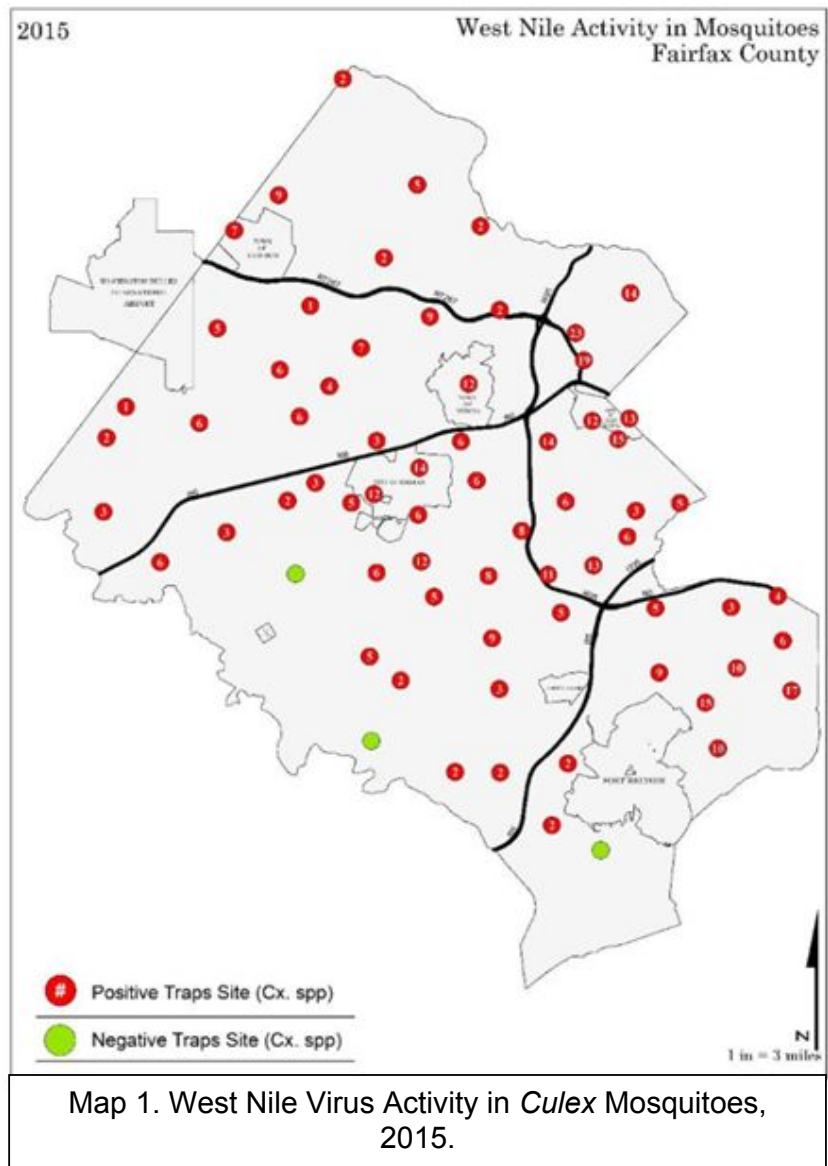
** Cases / deaths.

&Limited (select) number of birds collected and tested.

n/a: not applicable; †No birds tested.

In Fairfax County, *Culex pipiens*, *Culex restuans*, *Culex erraticus*, *Aedes albopictus*, *Aedes vexans* and *Anopheles punctipennis* are the species that have tested positive for WNV and would most likely transmit WNV to humans. *Culex pipiens* and *Culex restuans* have been identified as the principal vectors by calculating mosquito infection rates from 2002 through 2015. The vector status of *Culex pipiens* is supported by the findings of A.M. Kilpatrick et al. (Consortium for Conservation Medicine) demonstrating that this species shifts its feeding preferences from birds to humans by seven-fold during late summer and early fall, coinciding with the dispersal of its preferred host (American robins, *Turdus migratorius*) and the rise in human WNV infections. This mosquito species prefers to lay its eggs in stagnant water rich in organic matter, such as that found in some storm water catch basins. Larvae will hatch from these eggs before turning into pupae and finally become adult mosquitoes.

In the 2015 routine mosquito season, 111,781 mosquitoes were tested in 3,742 pools. Of the pools tested, 479 were positive for WNV (see map 1). During 2014, 97,027 mosquitoes were tested in 3,623 routine pools, of which 220 were positive. In 2015, only two species of mosquitoes (*Culex pipiens* and *Culex restuans*) tested positive for West Nile virus. In previous years, five other species have also tested positive for WNV in the County. During the 2015 season Fairfax County continued its comprehensive mosquito surveillance program, including 70 routine collection sites for a total of 3,663 trapping periods.



Preparation and Planning for WNV in Fairfax County

The established, in-house surveillance system will continue to be the foundation of the Disease Carrying Insects Program. This will enable the FCHD to detect WNV and respond to any threat in a timely fashion.

The County is participating in a wide array of ongoing Integrated Mosquito Management activities and undertaking new initiatives to enhance WNV prevention and mosquito control and better understand the transmission dynamics of the virus.

Effective July 1, 2003, the majority of funding for the Fairfax County WNV program was moved to Fund 40080, The Integrated Pest Management Program Fund, giving it the resources necessary for stability and effectiveness by including the program in a special tax district.

Working with a contractor, the FCHD has monitored mosquito breeding sites in Fairfax County for ten years. These breeding sites will continue to be monitored in 2016 and treated with the biological larvicide VectoLex® (*Bacillus sphaericus*), as necessary, when mosquito breeding is detected.

To keep County residents informed, the FCHD constantly reviews and updates public information materials in English and other select languages. In order to meet the needs of ethnic groups in the County, key elements of these materials have been translated into Chinese, Farsi, Korean, Spanish, Urdu, and Vietnamese. Fact sheets, brochures, and posters discussing actions Fairfax County residents can take to reduce mosquito populations (by eliminating sources of standing water), as well as personal protection from mosquito bites, have been widely disseminated from 2003 to present. In 2015, an eleventh calendar and seventh children's book were prepared, published and distributed.

Interim Report and Action Plan by Activity

1. Community Outreach and Public Education

Goal: To increase the public's knowledge about WNV, its consequences and mosquito control; to promote behavioral changes and to encourage the community to take an active role in reducing the risk of mosquito-borne diseases through preventive measures such as source reduction and personal protection.

Background and Report on 2015 Activities

In 2015, the County continued to aggressively disseminate public information materials to encourage Fairfax County residents to eliminate and/or treat standing water around their homes and to reduce their risk of infection by avoiding mosquito bites. Most of the mosquitoes that bite around the house also breed and develop around the house, so removing or treating breeding sites, using repellent, and treating the property with an adulticide, as necessary, will help reduce human-mosquito contact. News releases and expert interviews with print and broadcast media were used to deliver prevention messages in English and Spanish. Documents and brochures with the slogan "Fight the Bite" have been distributed through County Supervisors' offices, libraries, fairs, presentations, by mail and schools during the last several mosquito seasons. Information has also been provided regarding the clinical spectrum of illness and

prevention of WNV infection. In all of the WNV public information messages, the Health Department underscored the importance of eliminating standing water and using personal protection against mosquito bites.

In June 2015, the DCIP presented its eleventh 18-month calendar full of bright, colorful, and humorous graphics. The graphics in the calendar were accompanied by captions, facts, figures, important dates, and helpful reminders relating to West Nile virus, Lyme disease, prevention, and personal protection measures. Important behaviors such as cleaning gutters, emptying bird baths, filling depressions in the yard, and wearing insect repellent were strategically stressed throughout the calendar. General facts, local figures, and brief descriptions of the County's efforts were included to educate the public about basic mosquito biology and inform them specifically about mosquitoes and West Nile virus in Fairfax County. These calendars were distributed at DCIP events and to all Fairfax County fourth grade students through a collaborative effort with the Fairfax County Public Schools. By the end of the year, 20,000 calendars were distributed. Another 18-month calendar for 2016-2017 is in preparation.

The DCIP prepared a seventh children's book entitled "Ten Tiny Mosquitoes" as a means to present information on mosquitoes to parents and children. The author/illustrator was present with us at multiple outreach events to sign autographs as part of a "Meet the Author" activity.

Many inquiries regarding WNV and mosquito breeding sites were received by the DCIP via direct telephone calls, e-mails, and a Web-submission form. The DCIP receives complaints directly via a dedicated phone line and the "Fight the Bite" e-mail address, which is the Fairfax County Health Department's dedicated WNV e-mail (fightthebite@fairfaxcounty.gov). The Web submission form routes messages directly to the Fairfax Inspection Database Online (FIDO) system. A total of 30 visits were made during 2015, helping people resolve their mosquito and tick problems.

Planned Activities for Risk Communication, Public Education and Community Outreach
Public outreach, information, and education are mainstays of the DCIP and will continue to be emphasized during the 2016 season. All materials that we use will be reviewed and updated as needed and new materials will be prepared to better reach County residents.

The FCHD, with assistance from the Office of Public Affairs (OPA), will be the lead agency on content for WNV publications, posters, etc. and will make this information available to all interested County agencies and pertinent jurisdictions. The County will continue to use the "Fight the Bite" theme during 2016. The FCHD is also preparing outreach materials on Chikungunya and Zika viruses, two emerging mosquito-borne viruses now present in the western hemisphere.

Key Communication, Education and Outreach activities:

- Revise and update the DCIP Web page.
- Prepare, proof, print, and distribute a 2016-2017 18-month calendar.
- Promote Mosquito Control Awareness Week throughout the County.
- Distribute CDC literature on WNV
- Evaluate media strategies used in other regions and incorporate them into the program as feasible.
- Beginning mid-April, key messages will be disseminated through news releases, interviews, and public service announcements. Most will aim to elevate the population's awareness of WNV and steps that individuals can take for personal protection.
- Prepare, proof, print, and, distribute an eighth children's book.
- Prepare Chikungunya and Zika virus-related outreach materials.
- DCIP staff will work with OPA and the Board of Supervisors' offices to reach the constituents in each of the districts.
- Fairfax County Print Shop will be contacted to produce outreach and educational material, as needed.
- Brochures and other educational materials will be distributed at, by or through:
 - Fairs, festivals, and community events
 - Homeowners Associations
 - Civic Associations
 - Posters in public buildings
 - Clinic room aides and public health nurses (schools)
 - Farmers Markets
 - "Fight the Bite" Web page (www.fairfaxcounty.gov/fightthebite)
 - Health Department staff
 - Clinic and physician waiting rooms
 - Conferences and scientific meetings
 - Other distribution methods as available.
- During special events and through the Board of Supervisors' offices:
 - Information about the use of larvicides will be presented to the community as an option for larval reduction, in areas where the "tip and toss" campaign cannot be implemented.
 - Information about the use of repellents containing DEET, Picaridin, IR3535 or oil of lemon eucalyptus will be presented to the community as an option for personal protection against mosquito bites.
- If surveillance demonstrates potential human risk of infection with WNV, media messages will
 - Emphasize personal protection against mosquito bites using "Fight the Bite" recommendations.
 - Help Fairfax County residents ensure personal protection for themselves and family members.
 - Target traditional media outlets as well as community newspapers in multiple languages and in multiple neighborhoods.

- If the available surveillance data suggest imminent and substantial risk to human health and adult mosquito control is recommended, the FCHD will enhance its efforts to provide complete, timely, and accurate information on spray areas, spray schedule, and measures people can take to reduce exposure.
- Timeline of Activities:
 - Throughout the year, as necessary, the County will prepare and provide WNV-related media stories.
 - From June to October 2016, as determined by mosquito and WNV activity, the “Fight the Bite” campaign to prevent infection by reducing mosquito bites will be intensified.
 - Throughout the year outreach activities will be implemented as the need demands.
 - New materials will be prepared or acquired to target specific issues or groups for WNV information and protection.
 - During winter months (2016-2017), the DCIP will review and update all outreach materials and prepare new material as needed. Material will be printed and prepared for distribution to targeted groups.

2. Human Case Surveillance

Goal: To promptly detect, investigate, and report cases of human WNV disease to enable timely implementation of prevention and control measures to prevent further cases, if indicated; to assess and document the public health impact of WNV disease in Fairfax County.

Introduction and Report of Previous Activities

In 2015, the Fairfax County Health Department (FCHD) continued to use a system of enhanced passive surveillance to detect cases of WNV disease. FCHD also continued efforts to identify suspected WNV cases with higher risk of non-vector borne disease transmission, including individuals who had recently received or donated blood products or organs, and nursing or pregnant mothers.

Arboviral infection, including infection with West Nile virus, is one of more than 70 reportable diseases and conditions in Virginia, and physicians are required to report all suspect cases to local health departments (including FCHD). In addition to physician reports, FCHD also receives reports of suspect cases of arboviral infection from commercial laboratories, hospitals, the Division of Consolidated Laboratory Services (DCLS), and the Virginia Department of Health’s Office of Epidemiology.

All suspect cases of arboviral disease reported to FCHD are investigated. Suspect cases meeting the clinical criteria for West Nile neuroinvasive disease or West Nile fever with laboratory evidence of recent infection are classified as “confirmed” or “probable,” depending on the strength of the supporting laboratory evidence. Cases of arboviral disease are classified either as neuroinvasive or non-neuroinvasive (West Nile fever) according to the following clinical criteria:

Neuroinvasive disease

- Fever ($\geq 100.4^{\circ}\text{F}$ or 38°C) as reported by the patient or a health-care provider, AND
- Meningitis, encephalitis, acute flaccid paralysis, or other acute signs of central or peripheral neurologic dysfunction, as documented by a physician, AND
- Absence of a more likely clinical explanation.

Non-neuroinvasive disease (West Nile fever)

- Fever ($\geq 100.4^{\circ}\text{F}$ or 38°C) as reported by the patient or a health-care provider, AND
- Absence of neuroinvasive disease, AND
- Absence of a more likely clinical explanation.

Whenever possible, serological and/or cerebral spinal fluid (CSF) specimens from suspect arboviral cases are forwarded to DCLS for laboratory confirmation. Patient information and laboratory data is shared between the VDH Office of Epidemiology and FCHD in person, via telephone, or via fax to facilitate case surveillance and timely reporting of laboratory results to FCHD. Results reported to the FCHD about residents of other districts are forwarded by fax or mail to the appropriate local health department (in VA and the DC metro area) or state health department (for out-of-state residents). When laboratory results are negative, a report is sent to the original collecting physician. When laboratory results are equivocal, the collecting physician is notified and a convalescent sample may be requested. When laboratory results are positive, the collecting physician is notified and a convalescent serum sample may be requested, if needed for case confirmation. Positive results are investigated and entered into the Virginia Electronic Disease Surveillance System (VEDSS).

Cases of West Nile Virus Disease in Fairfax County in 2015

In 2015, nine human cases of WNV disease were identified in Fairfax County. Six of these cases were classified as neuroinvasive WNV. There was one WNV-related fatality in 2015.

Please note that this case data is subject to change as 2015 cases are finalized during the first several months of 2016.

Planned Surveillance Activities for WNV

In 2016, FCHD will continue to implement a system of enhanced passive surveillance for human arboviral infection, including WNV disease. FCHD will use the 2011 Centers for Disease Control and Prevention/Council of State and Territorial Epidemiologists case definition. If deemed necessary, active surveillance will be instituted based on the results of passive human case surveillance, mosquito surveillance, and any changes in

the epidemiology of WNV disease in surrounding counties or in the state.

As in 2015, enhanced passive surveillance will have two main components:

- 1) *Educating the medical community.* The FCHD will work to maximize physician reporting of WNV disease by: raising awareness within the medical community of the importance of reporting suspected infection, educating hospital infection control personnel and physicians on the criteria for reporting cases, and providing instructions for submission of appropriate laboratory specimens.

FCHD will continue to encourage physicians to:

- Consider arboviral infection in patients hospitalized with encephalitis of unknown etiology, particularly during the peak months of mosquito activity and viral amplification (July-October);
- Consider WNV in suspected cases of Guillain-Barré syndrome, botulism, and muscle weakness or flaccid paralysis; and
- Determine if there is a history of donating or receiving blood or organs or if the patient is pregnant or breast-feeding when WNV infection is diagnosed.

As in 2015, testing for WNV will be performed by DCLS. FCHD will continue to work with health care providers to ensure that appropriate specimens are submitted for testing.

- 2) *Laboratory surveillance.* FCHD will continue to investigate reports of sero-positive cases of arboviral infection submitted by commercial laboratories, hospitals, physicians, Division of Consolidated Laboratory Services (DCLS), and the Office of Epidemiology. FCHD will ensure that hospitals and laboratories are aware of the latest surveillance criteria, and have the information and materials necessary to forward diagnostic specimens to DCLS.

FCHD will also continue to encourage both physicians and laboratories to complete all essential information on the laboratory submission forms. Accurate interpretation of serological findings requires knowledge of the patient's clinical history.

Additional Surveillance Activities for WNV

Given evidence suggesting the potential for non-vector borne WNV transmission, FCHD will continue to determine if any human cases of probable or confirmed WNV infection:

- Received an organ transplantation or blood transfusion within the four weeks prior to illness onset, or acted as a blood donor during the two weeks prior to illness onset;
- Are pregnant or breast-feeding mothers; or
- Resulted from occupational exposure.

The VDH Office of Epidemiology will be notified in a timely fashion of any potential non-vector borne WNV transmissions. A trace-back investigation of transplant or transfusion

cases would involve the CDC and the Food and Drug Administration (FDA).

Please note: This Human Case Surveillance Plan may be updated, as needed, to reflect local surveillance needs, resources, or changes to guidelines from the Virginia Department of Health or the Centers for Disease Control and Prevention.

3. Mosquito Surveillance

Goal: To maintain a sustainable surveillance program to monitor vector mosquito populations and their WNV infection rates, as well as other associated factors that will allow the program to minimize the risk of potential WNV transmission to humans.

Background and Report on 2015 Activities

It is important to note that absolute high numbers of mosquitoes do not necessarily reflect high risk of human infection with WNV. High mosquito counts, even if the mosquito species involved may bite humans, are usually from large broods of floodwater “nuisance mosquitoes” such as *Psorophora* sp., which are less important than *Culex* or *Aedes* mosquitoes in WNV transmission. Fortunately, the Northern house mosquito, *Culex pipiens* (the principal WNV vector), feeds much less frequently on humans than *Aedes vexans* or *Aedes albopictus*.

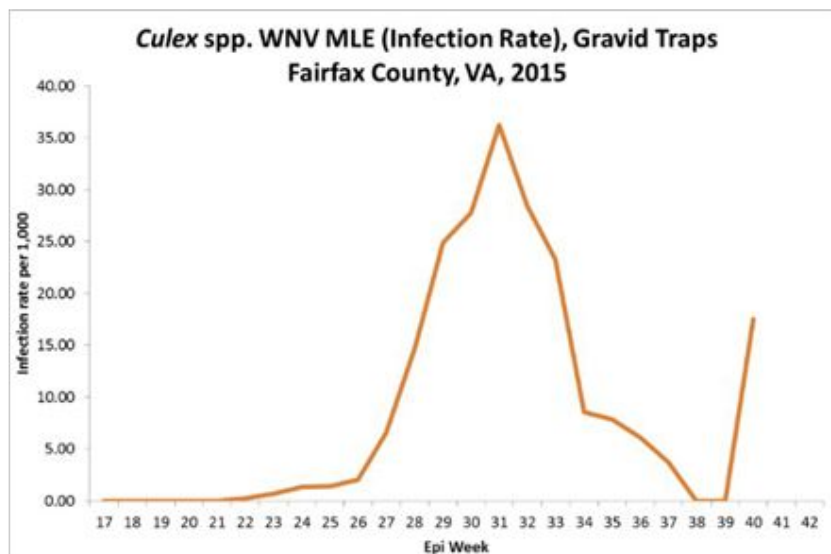


Fig. 1- Maximum Likelihood Estimates of West Nile virus infection, per 1,000 mosquitoes, in *Culex pipiens/restuans* mosquitoes found in gravid traps in Fairfax County, 2015.

In 2015 a total of 131,811 mosquitoes were collected over 3,663 trap-days. The FCHD tested 3,742 samples (pools) (which included 111,781 mosquitoes) for WNV testing and 479 of those pools were positive. From this information the DCIP was able to calculate that the Maximum Likelihood Estimate (MLE), or infection rate, of *Culex* mosquitoes ranged from zero to 36.24 per 1,000 mosquitoes

during the season with an additional spike in the infection rate of over 17 per 1,000 seen during the last week of mosquito collections (week 42) (Figure 1). The spike in the

infection rate at the end of the season can be attributed to positive mosquitoes found in a small number of mosquitoes tested.

The first WNV-positive mosquito pool was collected in week 24 (mid-June) and the peak infection rate was seen in week 33 (mid-August). The virus was active throughout the rest of the surveillance season to week 42 (mid-October). The observed infection rates were higher than previous years, but followed similar patterns to other years (e.g., 2004, 2008, 2011, 2012).

In Fairfax County, catch basins and artificial containers appear to be the preferred breeding site for *Culex pipiens*, while above-ground pools of stagnant water are the preferred breeding sites for *Culex restuans*.

The Asian tiger mosquito (*Aedes albopictus*) was the source of the majority of mosquito-related complaints received in 2015. This mosquito, which generally lays its eggs in and develops in containers, is an aggressive, persistent biter that can be found in large numbers around residences. Several factors contributed to the presence of *Aedes albopictus* around these homes; however, the presence of black corrugated pipes at the end of the downspouts from the roof gutters, even when placed underground, seemed to be a frequent source of the problem. Most of these corrugated pipes do not drain adequately and they retain water throughout the season, thus providing great mosquito breeding habitat. This mosquito is also a potential vector of the Chikungunya and Zika viruses.

In 2015, the FCHD continued to monitor and identify mosquito breeding sites throughout Fairfax County and sites where the treatment threshold was reached were treated with a larvicide. The eight year database of breeding sites will continue to serve as a guide to inspect and treat the breeding sites in the County on a monthly basis during 2016.

Beginning in 2012, the FCHD Laboratory performed molecular diagnostic (RT-PCR) testing to detect the presence of WNV in mosquitoes, and this will continue in 2016. The DCIP will continue to work with the FCHD to routinely monitor and evaluate the process.

Fort Belvoir continues to carry out regular mosquito surveillance activities and the mosquitoes are being tested by the County and incorporated into the data set.

Planned Activities for Mosquito Surveillance

FCHD mosquito surveillance activities for 2016 are as follows:

- Continue to conduct mosquito surveillance at approximately 70 trap sites throughout the County.
- Associate mosquito trap data with risk factors to assess how to predict human risk and refine “triggers” for mosquito control activities.

- Sort each trap collection by mosquito species and record information on location, collection data, trap type and the total number of female mosquitoes and test mosquitoes for WNV.
- Re-evaluate trap sites to be used during the 2016 season to ensure homogeneous coverage of the County and best trap efficiency.
- Conduct additional adult mosquito trapping in areas where conditions suggest a public health threat. This will help determine zones of potential local transmission and determine the extent of viral activity thus guiding interventions.
- Conduct additional mosquito trapping to evaluate the efficacy of control measures in the event that pesticides are applied for adult mosquito control.
- Increase trapping efforts in areas where surveillance indicators suggest an increase in WNV or other mosquito-borne disease activity.
- Continue to evaluate new traps and products (attractants, baits, etc.), particularly those that will enhance mosquito surveillance, capture species that are not readily collected by other trapping methods, or collect WNV vector species more efficiently.
- Ensure adequate routine inspection of suspected breeding sites to determine the presence of larvae.
- Collect and update larval habitat information throughout the season (May-October) and treat sites that produce mosquitoes.
- Work with the FCHD Laboratory to ensure that mosquito testing is performed in a timely manner so that a response, if necessary, occurs opportunistically.
- Respond to residents' concerns regarding mosquitoes in a timely manner.
- Share information in a timely fashion with the contractor, county agencies and neighboring jurisdictions regarding sites needing larvicide, as appropriate.

4. Environmental Considerations

Goal: To monitor environmental factors (temperature, rainfall, and photoperiod) to correlate with surveillance results and WNV circulation to determine those factors that may influence WNV transmission.

Background and Report on 2015 Activities

It is apparent that some of the factors associated with WNV transmission are temperature, rainfall, and photoperiod (day length). Cooler temperatures prolong the development of the virus in the mosquito, requiring a longer period for mosquitoes to become infective. Lower temperatures also prolong the larval development of mosquitoes, keeping them in breeding sites for longer periods of time. Frequent and abundant precipitation may flush out catch basins and other breeding sites, washing away mosquito larvae that may be present. However, it ultimately creates more breeding sites for mosquitoes.

While climatic factors cannot be controlled or modified, monitoring them will help understand their effect on mosquito-transmitted diseases. In 2016, the FCHD will continue to monitor climatic factors, in order to be able to correlate them with either disease or mosquito abundance.

Planned Activities for Environmental Considerations

- Continue to monitor climatic factors in 2016, and correlate them with both disease and mosquito abundance.
- Official (NOAA) weather data will be collected from weather stations at Ronald Reagan Washington National Airport and Washington Dulles International Airport on a daily basis and recorded electronically.
- Weather trends will be monitored and correlated with surveillance information to help better understand mosquito population variation, viral activity, and human infection.
- As necessary, site-specific temperature data will be collected using environmental data loggers.

5. Operational Research

Goal: *To carry out designed experiments in a scientific manner which will answer specific operational questions that will allow us to better understand mosquito ecology, distribution and mosquito-borne illnesses.*

Background and Report on 2015 Activities

No formal operational research activities were carried out in 2015.

Planned Activities for Operational Research

No operational research activities are currently planned for 2016.

6. Source Reduction (elimination of standing water)

Goal: *To reduce the number of adult mosquitoes by eliminating potential mosquito development sites.*

Background and Report on 2015 Activities

All mosquitoes begin their life in water. *Culex pipiens* and *Culex restuans*, the primary vectors of WNV in Fairfax County, and the Asian tiger mosquito (*Aedes albopictus*) are three mosquitoes commonly found in urban areas. The *Culex* mosquitoes breed quickly and lay their eggs on standing water. The Asian tiger mosquito is the primary nuisance and main backyard mosquito in the County and usually appears later in the summer. It lays its eggs in artificial containers and is commonly found around homes. Prime sites for all these mosquitoes to develop include tires left outdoors, poorly-maintained bird baths, clogged rain gutters, poorly-maintained swimming and plastic wading pools, pots, black corrugated drain pipes (even if placed underground) and puddles that last for a week or more. Eliminating these containers or preventing standing water is the simplest and most effective way to reduce the number of mosquitoes. Every residential and commercial property owner should regularly (at least weekly) inspect their property and buildings to determine if conditions are conducive to mosquito development and endeavor to eliminate those conditions. Mosquito development can be prevented by either eliminating the standing water (source reduction) or treating the water with larvicide if source reduction is not possible.

The County's WNV community outreach, information, and public education campaign highlights the need for residents to eliminate mosquito-breeding sites around their homes. Diagrams of potential sources around the home were described in multiple media events and languages as well as on the WNV Web page.

In 2015, the DCIP assisted residents in 30 service requests. Most of the mosquito complaints were related to the Asian tiger mosquito.

In 2016, the DCIP will continue to receive complaints from residents regarding standing water and mosquito development sites throughout the County and take the appropriate action to abate them.

Planned Activities for Source Reduction

- The DCIP will work with homeowners' associations to promote community participation and distribute printed information on the need to eliminate mosquito-breeding sites on their property or to properly treat them with larvicide.
- FIDO, the telephone lines (703-246-8931, TTY 711), and the "Fight the Bite" e-mail will continue to receive complaints on mosquitoes and standing water.
- Complaints will be logged in the FIDO system and addressed by the DCIP staff.
- County residents will be asked to eliminate standing water on private property or to report standing water to (703-246-8931, TTY 711), if it is on public property.
- The FCHD will work closely with the Department of Public Works and Environmental Services (DPWES) on mosquito problems in storm water retention/detention ponds, particularly those that are being retrofitted to wetlands.
- FCHD will route mosquito issues in roadside canals and blocked catch basins to the Virginia Department of Transportation (VDOT).
- In collaboration with Fairfax County Public Schools, mosquito populations will be monitored on school campuses in the County.

7. Larviciding

Goal: To reduce the number of Culex mosquitoes by applying environmentally-safe larvicides in breeding sites that cannot be drained.

Background

Storm drains, sometimes called catch basins, storm sewers or storm water catch basins are located throughout the County. Storm drains usually drain well and do not present an opportunity for mosquito breeding; however, some (particularly those in older communities in the County) may have structural problems or may be partially blocked, retain water and produce excellent breeding sites for *Culex* mosquitoes. The number of storm drains in the County is estimated to be over 100,000, and the number can change from year-to-year as new construction and other changes to the stormwater infrastructure occur. Based on WNV data from previous years, the FCHD worked with a contractor and began treating storm drains proactively in predetermined areas of the

County. The larvicides that will be used on a rotation basis in order to reduce resistance are Natular-G (contains the active ingredient spinosad, a product derived from a naturally-occurring soil bacterium), VectoLex® (*Bacillus sphaericus*, a naturally-occurring soil bacterium that produces toxins which cause death in mosquito larvae) or Vectomax™ (a combination of *Bacillus sphaericus* and *Bacillus thuringiensis* var. *israelensis* also a naturally-occurring bacterium). All three of these products are considered ideal for mosquito management because they only affect mosquitoes and very few other non-target organisms. During the 2015 season, 59,084 storm drains were treated in three treatment cycles. The number of storm drains treated in a season is dependent on several factors, including weather, degree of viral activity, resources, etc. In addition to the routine storm drain treatments, all the storm drains in the Huntington area were treated once a week to lower the *Culex* population.

Dr. Roger Nasci (CDC) has stated, “[WNV] programs with the most intensive larviciding had proportionally fewer human WNV cases.” Dr. Linn D. Haramis, (Illinois Department of Health), indicated that Cook County programs with the most intense larviciding programs had proportionately fewer WNV cases. Dr. Ned Walker, (Michigan State University), noted that in Michigan, the infection rate in mosquitoes was four per 1,000 in areas with catch basin control and 28 per 1,000 in areas without such control activities. Even though this data is not conclusive, it strongly supports storm drain larviciding at least until WNV transmission and factors affecting it are better understood.

Planned Activities for Larviciding

- The DCIP is planning three storm drain treatment cycles in 2016. If needed, an additional cycle will be conducted.
- The Huntington (Cameron Run Park) area will be treated with a larvicide as necessary early in the season as an effort of reducing the mosquito populations.
- The Huntington area storm drains will be treated on a weekly basis due to the tidal effect.
- The first round of storm drain treatments will begin in mid-May and will follow the programmed storm drain treatment order in the County tax map areas treated in 2015.
- The second and third rounds of treatment will follow the pre-established order.
- The DCIP will purchase sufficient larvicide for the FCHD staff to treat larval development sites, as necessary, to abate immediate problems as identified during inspections.
- The FCHD will routinely inspect and larvicide previously identified larval development sites.
- The FCHD will work in collaboration with the DPWES in the surveillance and larviciding of storm water detention/retention ponds.
- The FCHD will verify WNV control and mosquito management plans of action through the regular meetings of the Mosquito Surveillance Management Subcommittee (MSMS).

- The FCHD will to monitor storm drains outside the treatment area and treat them, as necessary.
- The FCHD will comply with the NPDES and VPDES and implement the DCIP plan to employ the nine best management components of the Pesticide Discharge Management Plan (PDMP) as part of the operative VPDES permit as stated at the end of Appendix 1.

8. Adult Mosquito Control

Goal: To reduce the abundance of infected adult mosquitoes through the judicious use of pesticides in targeted areas when there is significant risk of mosquito-borne disease transmission.

Background and Report on 2015 Activities

While source reduction and the application of larvicides are the principal and most effective interventions to reduce mosquito populations, situations may arise in which infected adult mosquitoes are present in significant numbers and pose a threat to human health. In these situations, judicious application of adulticides to control mosquito populations will be added to all other mosquito control activities as an additional measure to reduce risk of illness and death in humans. WNV guidelines from CDC state that adulticiding based on surveillance data is an extremely important part of any integrated mosquito management program and should be used when there is significant risk of human illness.

Some of the insecticides that are used against adult mosquitoes include synthetic pyrethroids and malathion (an organophosphate) that have been used for more than 30 years and are registered by the U.S. Environmental Protection Agency and the Virginia Department of Agriculture and Consumer Services for adult mosquito control in residential areas. These insecticides provide a rapid knockdown, killing adult mosquitoes upon contact. They also have low toxicity to mammals and birds, degrade rapidly in sunlight and water, and provide little or no residual activity.

There are two principal strategies in adulticiding that can be employed in mosquito control. One is to produce tiny droplets of insecticide from a machine (frequently mounted on a truck or aircraft) in such a way that a cloud of insecticide is produced. In this method, called Ultra Low Volume (ULV), the effect of the insecticide lasts a very short period of time and will only kill those mosquitoes which come in contact with these tiny droplets. A second strategy, called barrier spraying, is to lay down a thin, residual coat of insecticide on vegetation or man-made structures. In this case, the insecticide lasts for a longer period of time and will kill any mosquito that comes into contact with the insecticide during the time that it is active.

In the event that ULV adulticiding is necessary, the FCHD will define the areas in the County where risk of WNV infection to humans is highest and require such action.

Drivers and trucks from the contractor will be escorted by police and will apply adulticide to the defined areas.

All adulticiding activities will be conducted under the direction of the County Executive and in consultation with MWCOG and the VDH, and in coordination with any affected county, city or town within or adjacent to Fairfax County.

Mosquito species and habitat, weather, time of year, the presence of the virus and the proximity of infected mosquitoes to human populations will be considered in determining the necessity for adult mosquito control. If the application of an adulticide becomes necessary, the FCHD will provide advance notice to the public and health care providers in affected areas.

Prior to 2005, even in the years when there were human WNV cases, the use of insecticides against adult mosquitoes had not been indicated by the surveillance program. In 2005, 2006, and 2007 it was determined that it would be necessary to apply a barrier spray in an area where the surveillance program showed high WNV activity in the mosquitoes. Subsequent surveillance data showed that the barrier spray reduced the vector index, thus lowering the risk of WNV to humans in the area. All activities were conducted under the direction of the County Executive, and all of the residents in the affected areas were notified before treatment by hand-delivered letters. None of the human cases reported in Fairfax County were from these areas. In 2015, no adulticiding for mosquitoes was deemed necessary.

At a minimum, the following factors will be considered when deciding the scope of the adulticiding effort:

- The general ecology of the area, e.g., key habitat types and the presence of natural barriers such as rivers.
- The population composition, density, distribution and flight range of the target mosquito species.
- The human population characteristics – spatial distribution and density relative to the positive locality (e.g. urban vs. rural), age demographics, etc.
- Evidence of persistent WNV activity detected by the surveillance program, season of the year, and how long WNV activity can be expected to persist until the epizootic/epidemic vector(s) enter their overwintering phase.

Planned Activities for Adult Mosquito Control

The presence of mosquito-borne pathogens in Fairfax County will result in one or more responses or interventions recommended by the FCHD. These interventions can range from continuing existing surveillance, education, and outreach to the targeted application of adulticides.

The FCHD will utilize its surveillance data to assess the risk of an outbreak of human disease and the need to apply insecticides in a limited and targeted area to control adult

mosquitoes. Vector considerations include level of documented virus, the distribution, density, and infection rate of the vector population. Other factors must also be considered before insecticide is used. Environmental considerations include habitat, time of year, weather conditions. The density and proximity of human populations are also considered before adulticide treatments are made. Because conditions can vary greatly and cannot be predicted, a consultation process with VDH, CDC and surrounding jurisdictions may be used to determine which, if any, responses are appropriate, on a case-by-case basis.

If adulticides are used, advance notification will be disseminated to surrounding residents indicating when and where the insecticides will be applied. This allows residents who wish to avoid exposure to take necessary actions and precautions. The Virginia Poison Control Center, area hospitals, and health care providers will be provided information on the pesticide being used. All insecticides considered for use are registered with the U.S. Environmental Protection Agency and the Virginia Department of Agriculture and Consumer Services and will be used according to the label directions. When choosing pesticides for mosquito control, preference will be given to those insecticides that pose the least risk to humans and the environment.

In order to categorize the use of adulticides in Fairfax County, any responses initiated by the FCHD can be grouped into six broad categories or levels of risk. These levels are tailored after those of CDC, yet are modified to specifically reflect Fairfax County's position based on previous findings.

Level 0

Definition: Fall/winter; vector inactive, climate unsuitable for WNV transmission.

Response: Prepare material and equipment for the upcoming WNV season. Surveillance and control programs continue as outlined in the County's Surveillance and Control Plan. Identify locations where source reduction activities can be applied; secure surveillance and control resources necessary to enable response to WNV activity; initiate community outreach and public education programs; enhance communication with surrounding jurisdictions; recruit and train new staff; communicate with and educate large property owners of the importance of source reduction in areas such as cemeteries, golf courses, country clubs; communicate status of WNV activity to Director of the Health Department, the Board of Supervisors and the public, as the WNV season starts.

Level 1

Definition: Spring/summer/fall; anticipating WNV activity based on previous activity in region. No current surveillance findings indicating WNV activity in the area.

Response: Respond as in level 0, plus: continue and enhance source reduction; conduct larval control in identified breeding habitats where source reduction is not

possible (emphasis will be placed on known *Culex* species breeding sites); continue community outreach and public education; work with other County departments on source reduction and mosquito control activities; initiate catch basin treatment rounds.

Level 2

Definition: Spring/summer/fall; initial, sporadic or limited WNV activity in mosquitoes.

Response: Respond as in level 1, plus: increase larval control activities; continue source reduction in cooperation with other County departments; and increase public education, emphasizing personal protection measures, particularly the use of products containing DEET, Picaridin, IR-3535 or oil of lemon eucalyptus. Enhance human surveillance and activities to quantify epizootic activity (e.g. mosquito trapping and testing) in areas of concern. Consider recommending to the public that they decrease outdoor activities when mosquitoes are biting.

Level 3

Definition: Spring/summer/fall; initial confirmation of WNV in a human or a horse, or moderate WNV activity in mosquitoes.

Response: Respond as in level 2, plus: expand public information programs (repellent use, personal protection, source reduction, risk communication about adult mosquito control program); prepare to implement adult mosquito control, if surveillance findings indicate the likely potential for human risk to persist or increase.

Level 4

Definition: Spring/summer/fall; surveillance findings indicate high risk of human infection, (high mosquito infection rates and vector index, multiple positive mosquito species, horse or other mammalian cases indicating increasing epizootic transmission, or a human case and high levels of epizootic activity) and abundant adult vectors.

Response: Respond as in level 3, plus: continue active surveillance for human cases; make final arrangements to implement adult mosquito control program in areas of potential human risk. The use of adulticides will be used in a limited manner as needed.

Level 5

Definition: Spring/summer/fall; marked increase of confirmed multiple WNV cases in humans and conditions favoring continued transmission to humans.

Response: Respond as in level 4, plus: implement or intensify emergency adult mosquito control program; monitor effectiveness of adulticiding on target mosquito

populations; coordinate adult mosquito control activities with surrounding jurisdictions. The FCHD activities related to adulticiding will include the following:

- Various mosquito traps, including CDC miniature light traps and gravid traps will be used in the treatment area if additional surveillance data are required.
- The FCHD will work with state entomologist and/or CDC personnel, as well as the contractor, to design and implement feasible measures to monitor the efficacy of the adulticiding activities.
- The public will be notified of adulticide schedules in advance. This will allow residents with special health concerns sufficient time to take any precautions to reduce pesticide exposure (see Public Education and Community Outreach).
- Hospitals will be notified regarding the adulticiding schedule. Information on the pesticide used will be provided to the public, physicians, and other health care providers.
- Adult mosquito control will be scheduled when mosquitoes are active and weather conditions are conducive to its success.
- Information will be released, in advance, through the media, the FCHD WNV Web page, and through news releases, the MSMS, as well as pertinent county agencies and the community.

Table 2. Factors to consider when establishing thresholds for the use of larvicides, pupicides, and adulticides to control mosquitoes in order to address public health threats

Factor	Description	Consideration
Mosquito species	The ability of mosquito species to carry and transmit disease organisms (Vector Competence); flight distance; feeding preferences; seasonality; type of breeding habitat; biology.	Often species, vector competence and biology of the mosquito are more important in developing thresholds than relative abundance of mosquitoes.
History of mosquito-borne pathogens in the area	Surveillance results of mosquito-borne pathogen activity in the area in mosquitoes, reservoir hosts and humans in the area.	Areas with evidence of mosquito-borne pathogens will likely have lower thresholds.
Proximity to human populations	The distance from potential mosquito habitats to human population centers (number and density).	The potential to produce large numbers of mosquitoes in close proximity to population centers may result in less tolerance and lower action thresholds.
Weather patterns	Prevailing wind patterns, precipitation and temperatures.	High precipitation may produce man-biting flood water mosquitoes; prevailing wind patterns may carry mosquitoes to populated areas requiring lower action thresholds.
Mosquito tolerance	Tolerance to mosquitoes varies from person to person.	Highly-populated areas may require lower action thresholds due to more intolerance to mosquitoes.
Natural predator populations	Balanced predator-prey populations may limit mosquito production.	Larval habitats that have high predator populations are adequate to control mosquito populations and may require higher action thresholds.
Type of mosquito habitat	Preferred developmental habitat for mosquitoes is species specific.	Since developmental habitat is species specific, adult nuisance mosquito species should be correlated to each individual habitat.
Water quality	Water quality influences mosquito productivity.	Since water quality can be species specific, adult nuisance

		mosquito species should be correlated to the specific habitat.
Water and vegetation management	Management of water levels and vegetation may reduce mosquito productivity.	Treatment thresholds should be higher where water level and vegetation can be managed.
Accessibility for surveillance and control	Mosquito developmental habitats may not have adequate access to surveillance or implement mosquito management.	Thresholds will be higher for areas that have limited access for surveillance and control.
Non-target organisms	The presence of non-target organisms in the spray area and their susceptibility to the product used.	Minimize the impact of larvicides, pupicides and adulticides on non-target organisms by using the most target-specific product, apply the product at the best time of day possible to minimize effect on non-targets and use the least amount of product necessary; always following label instructions.

II. Tick and Tick-Borne Disease Surveillance 2015 Report and Comprehensive Plan for 2016

Background

Public Health Impact

Tick-borne diseases continue to impact public health causing serious acute illness, long-term effects and, sometimes, death. The recent and widespread encroachment of suburban sprawl into areas that were once undeveloped or farmland, and the large deer populations in these suburban communities, have increased the prevalence of disease-carrying ticks and the exposure of the human population to the disease pathogens they carry.

Ticks are excellent vectors of pathogens of public health importance. They are the number one disease vector in the United States and second only to mosquitoes as vectors of human disease worldwide. Ticks carry and transmit a remarkable array of pathogens, including bacteria, viruses, spirochetes, rickettsiae, protozoa, nematodes and toxins. Furthermore, a single tick bite can transmit multiple pathogens -- a phenomenon that has led to atypical clinical presentations of some classic tick-borne diseases.

Ticks are among the most common disease vectors in the United States and are capable of transmitting *Borrelia burgdorferi* (the agent for Lyme disease), *Rickettsia rickettsii* (the agent for Rocky Mountain spotted fever), *Rickettsia parkeri* (the agent for Tidewater spotted fever), other spotted fever rickettsias, *Anaplasma phagocytophilum*, *Ehrlichia chaffeensis*, *Babesia microti*, the agents for relapsing fever, Colorado tick fever virus, *Francisella tularensis* (the agent for tularemia), *Coxiella burnetii* (the agent for Q fever), Powassan virus and can cause tick paralysis.

Vector Biology

Knowledge of tick biology is important in understanding the tick's role in disease transmission and is equally important in the prevention of tick-borne diseases. There are four distinct life stages in a tick: egg, larva, nymph, and adult. The length of the life cycle, host-specificity, and the number of hosts fed upon depends on the tick species. Most ticks have a one or two-year life cycle and will have from one to three hosts.

The essential characteristic of ticks, in terms of disease transmission to humans, is their need to ingest a blood meal to develop into the next stage of their life cycle. Ticks will take their requisite blood meal from all classes of vertebrates, with the exception of fish. Ticks find their host by questing, a behavior in which they perch on low vegetation and wait for a suitable host to pass by, onto which they can attach and feed or by actively following chemical cues such as carbon dioxide. Once on a host, the tick attaches its hypostome (mouthpart) a central piercing element with hooks, into the host's skin. Some ticks may secrete an adhesive to fasten themselves to the host, as well as inject

anticoagulant, immunosuppressive, and anti-inflammatory substances into the area of the bite. These prevent hosts from noticing ticks and thus aid the tick in obtaining a blood meal. This behavior and these same substances also help transmit any pathogens that the tick may be carrying.

Introduction to Vector Surveillance

The Disease Carrying Insects Program began tick surveillance in 2005, and since then has continued monitoring the tick population in select areas. The surveillance methods used are drags, flags, traps, alcohol jars in veterinary clinics and the Animal Shelter, and a tick identification service for residents that bring ticks in to the Health Department.

Progress Report for 2015 and Action Plan for 2016, by Activity

1. Risk Communication, Community Outreach and Public Education

Goal: To increase the public's knowledge about ticks, Lyme disease and other tick-borne diseases; to promote behavioral change; and to encourage the community to take an active role in reducing their risk of tick-borne diseases through preventive and control measures.

Background and Report on 2015 Activities

Demand for information about ticks and tick-borne diseases (particularly Lyme disease) continued to increase over the last year, and the Board of Supervisors once again requested that efforts be amplified in this area.

The DCIP brochure on ticks, Lyme disease, and other tick-borne diseases continued to be an important outreach tool in 2015. The brochure on tick bite prevention that was developed for children was also an important outreach tool throughout the year. The DCIP staff was invited to give several presentations throughout the County to a variety of groups where information regarding ticks and Lyme disease was distributed. Tick and Lyme disease information and graphics were also incorporated into the DCIP 18-month calendar that was distributed through Fairfax County schools and to the public.

Planned activities for Risk Communication, Community Outreach and Public Education

The following activities will be carried out in 2016:

- Prepare and distribute educational materials on ticks and Lyme disease.
- Distribute educational material at all relevant venues.
- Inform residents about personal protection and the actions they can take to keep their property free from ticks.
- Emphasize the importance of personal protection, the use of EPA-registered insect repellents, and proper dress when spending time outdoors.
- Stress the importance of tick checks on people and pets.
- Give presentations to community groups as requested.
- Prepare media alerts when necessary.

- Update the Web page on ticks, their control, the diseases they transmit, and personal protection.
- Educate people one-on-one when they bring a tick in for identification.

2. Human Case Surveillance

Goal: To monitor the burden of tick-borne diseases (particularly Lyme disease) in Fairfax County through laboratory and physician case reporting.

Background and Report on 2015 Activities

In 2015, FCHD continued to use a system of passive surveillance to detect cases of Lyme disease and other tick-borne diseases and worked closely with local physicians and laboratories to improve the quality and timeliness of disease reporting.

Virginia state law requires that physicians, directors of medical care facilities, and directors of laboratories report cases of Lyme disease, ehrlichiosis, spotted fever rickettsiosis, anaplasmosis, and Q fever within one to three days of diagnosis (depending on the disease). All suspect cases of these tick-borne diseases reported to FCHD are investigated, classified, and entered into an FCHD database and the Virginia Electronic Disease Surveillance System. Of note, babesiosis is not currently included on the Virginia list of reportable diseases.

In 2015, FCHD and VDH used the most current CDC surveillance case definitions for the four reportable tick-borne diseases. For Lyme disease (the most commonly reported tick-borne illness), this case definition uses the following classifications:

- *Confirmed:* a) a case of erythema migrans (an expanding rash that is the best clinical marker of the disease) with a known exposure, b) a case of erythema migrans with laboratory evidence of infection and without a known exposure, or c) a case with at least one late manifestation (involvement of the musculoskeletal, nervous and cardiovascular systems without an alternate explanation) that has laboratory evidence of infection.
- *Probable:* any other case of physician diagnosed Lyme disease that has laboratory evidence of infection.
- *Suspected:* a) a case of EM with no known exposure and no laboratory evidence of infection, or b) a case with laboratory evidence of infection but no clinical information available.

For surveillance purposes, exposure to Lyme disease is defined as having been (less than 30 days before onset of EM) in wooded, brushy, or grassy areas (i.e., potential tick habitats) in a county in which Lyme disease is endemic (including Fairfax County). A history of tick bite is not required.

Laboratory criteria for confirmation of Lyme disease cases for 2015 were as follows:

- Positive Culture for *B. burgdorferi*, or

- Two-tier testing interpreted using established criteria, where:
 - Positive IgM is sufficient only when ≤ 30 days from symptom onset
 - Positive IgG is sufficient at any point during illness
- Single-tier IgG immunoblot seropositivity using established criteria.
- CSF antibody positive for *B. burgdorferi* by Enzyme Immunoassay (EIA) or Immunofluorescence Assay (IFA), when the titer is higher than it was in serum.

Cases of Lyme Disease and other tick borne illnesses in Fairfax County in 2015

Using the case criteria outlined above, the FCHD detected and reported a total of 190 cases of Lyme disease in Fairfax County in 2015. By comparison, 284 cases of Lyme disease were reported in 2014.

Eleven cases of spotted fever rickettsiosis (including Rocky Mountain spotted fever), seven cases of ehrlichiosis/anaplasmosis were reported in 2015. No cases of acute Q fever were identified.

Please note that 2015 data is subject to change as case reports from 2015 are finalized in the first several months of 2016.

Planned activities for Human Case Surveillance

In 2016, FCHD will continue to implement a passive surveillance system for human tick-borne diseases. FCHD will use the 2011 Centers for Disease Control and Prevention/Council of State and Territorial Epidemiologists case definition. In an effort to improve the quality and timeliness of Lyme disease reporting, particular emphasis will be placed on:

- *Educating the medical community.* FCHD will work to maximize physician reporting of Lyme disease by: continuing to emphasize with the medical community the increasing incidence of disease in Northern Virginia and the importance of timely and accurate diagnosis and disease reporting.
- *Laboratory surveillance.* FCHD will continue to investigate all laboratory reports suggestive of Lyme disease that are submitted by commercial laboratories, hospitals, and physicians.

FCHD will also continue to encourage both physicians and laboratories to complete all essential information on Lyme disease reporting forms. Accurate classification of cases normally requires knowledge of both the patient's clinical history and laboratory test results.

Please note: The Human Case Surveillance Plan for tick-borne diseases may be updated as needed to reflect local surveillance needs and changes to surveillance guidelines published by VDH or the CDC.

3. Tick Surveillance

Goal: *To determine the density and distribution of various tick vector species (including Ixodes scapularis) in order to estimate the prevalence of various infectious agents (including Borrelia burgdorferi) the agent that causes Lyme disease, in the tick populations.*

Background and Report on 2015 Activities

The blacklegged tick (*Ixodes scapularis*) is the most important arthropod vector of human disease in Virginia and the primary focus of the DCIP's tick surveillance efforts. Nevertheless, we carry out surveillance of all the principal tick species collected in the County as well as the pathogens that they carry.

In 2015, a total of 2,956 ticks were collected, the majority of which were Lone Star ticks (*Am. americanum*). The blacklegged tick or deer tick (*Ixodes scapularis*) was the second most common tick collected, followed by the American Dog tick (*Dermacentor variabilis*). Other ticks that were occasionally collected include the Gulf Coast tick (*Amblyomma maculatum*), the rabbit tick (*Haemaphysalis leporispalustris*) and the winter tick (*Dermacentor albipictus*). Some of the ticks were held for pathogen detection.

Ticks collected in 2015 have not yet been tested. Previous testing was performed under a contract which expired in 2015. The Fairfax County Health Department Laboratory has been working on establishing tick testing protocols and expects to be able to provide tick testing in the near future.

Planned activities for Tick Surveillance

The following activities will be carried out in 2016:

- Continue to conduct tick surveillance at four sites throughout the County.
- Add new sites as needed.
- Sort each collection by tick species and record information on stage, location, collection date, collection method and the total number ticks.
- Test ticks for pathogens.
- Respond to residents' concerns regarding ticks in a timely manner.
- Collect ticks from at least three local veterinarians and the animal shelter to increase the number of underrepresented species (i.e., the Brown dog tick).
- Participate in deer hunts to obtain ticks.
- Seek out new deer hunts and new opportunities for tick collection.

4. Tick Identification Service

Goal: To combat the threat of tick-borne diseases to County residents by providing a service for tick identification to species, stage of development, and relative degree of engorgement.

Background and Report on 2015 Activities

There are four tick species found in Fairfax County that can transmit disease to humans. The blacklegged tick (*Ixodes scapularis*) transmits the bacterium which causes Lyme disease. The Lone Star tick (*Amblyomma americanum*) transmits the bacterium that causes Ehrlichiosis. The American Dog tick (*Dermacentor variabilis*) transmits the pathogen that causes Rocky Mountain Spotted Fever as well as other spotted fever rickettsias that may cause illnesses. The Gulf Coast tick (*Amblyomma maculatum*) transmits *Rickettsia parkeri*, a pathogen that causes a spotted fever illness. Other diseases transmitted by ticks to a lesser degree can be found in Table 4.

In 2008, the FCHD began advertising a tick identification service that encouraged County residents to bring their ticks to the DCIP to help raise awareness of Lyme disease and provide information on ticks and tick-borne diseases in the County. In 2015, 317 specimens were brought to the Health Department for identification. Of these, 293 were ticks: 219 Lone Star ticks (*Amblyomma americanum*), 43 blacklegged ticks (*Ixodes scapularis*), 28 American Dog ticks (*Dermacentor variabilis*), 1 unidentified *Ixodes* species, 1 Gulf Coast Tick (*Am. maculatum*), and 1 Cayenne tick (*Am. cajennense*) were brought to the tick identification service. The Cayenne tick is not found in this region of the U.S., but was brought in by someone with recent travel to an area where the tick is present. Twelve of the 24 specimens that were not ticks were insects or other arthropods.

Planned activities for Tick Identification

The following activities will be carried out in 2016:

- Encourage the public to bring in ticks for identification.
- Continue the tick identification service.
- Continue to stress the importance of personal protection (e.g., dress properly, use DEET-based repellents) against tick bites.
- Continue to stress the importance of tick checks on self, children, and pets.
- Provide those who bring in ticks for identification with appropriate information on ticks and tick-borne disease and make them aware of the symptoms of tick-borne diseases.
- Encourage medical consultation if an engorged blacklegged tick is identified or if the person experiences symptoms of a tick-borne illness.

5. Operational Research

Goal: To carry out designed experiments in a scientific manner which will answer specific operational questions that will allow us to better understand tick distribution and tick-borne illnesses.

Background and Report on 2015 Activities

Ticks were collected at the two 4-poster sites and the two control sites. This tick data was collected as a part of the County's 4-Poster Deer Treatment Station pilot study that was being carried out by the Wildlife Biologist's Office. The project ended in 2015.

Planned Activities for Operational Research

No operational research activities are currently planned for 2016.

III. Other Disease-transmitting Insects of Public Health Importance, 2015 Report and Comprehensive Plan for 2016

Background

Other insects with the potential to transmit disease can be found throughout Fairfax County. These insects or the conditions that allow them to proliferate, could, at times, be considered public health or safety menaces.

Progress Report for 2015 and Action Plan for 2016, by Activity

1. Community Outreach and Public Education

Goal: To increase the public's knowledge about other disease-transmitting insects of public health importance; to promote behavioral change; and to encourage the community to take an active role in reducing these insects and the diseases they transmit through preventive and control measures.

In 2015, the Disease Carrying Insects Program began to work with other sections of the Division of Environmental Health to develop messaging about other disease-transmitting insects of public health importance, such as cockroaches. Environmental Health and DCIP staff worked together to update a handout entitled "Cockroach Prevention in the Home". The handout was translated into Spanish and Arabic.

In 2016, the Disease Carrying Insects Program will continue to include other disease-transmitting insects of public health importance, such as cockroaches, in its outreach and education activities. The outreach model employed by the DCIP will be applied to these insects in order to heighten community awareness. Messaging about these other insects may also be implemented using other techniques depending on the needs of the program. As with the mosquito and tick outreach messages, the messages related to other insects will focus on integrated pest management strategies.

Program Resources

In 2016, the Fairfax County Disease Carrying Insects Program will be supported by the following resources:

Fund 40080

One Entomologist (Environmental Health Supervisor)
One Senior Biologist (Environmental Health Specialist-III)
Two Merit Biologists (Environmental Health Specialist-II)
One Merit Administrative Assistant (Admin-III)
One E-status Biologist (Environmental Health Specialist-II)
Four E-status (Environmental Health Technician-I)
One G-status (Environmental Health Technician-I)

General Fund (Health Department)

One (10 percent) Environmental Health Specialists (Environmental Health Specialist-III)
– GIS Specialist
One (10 percent) Senior Administrative Coordination

Other departments, agencies and jurisdictions

Mosquito Surveillance and Management Subcommittee (MSMS)

MSMS Members

City of Fairfax
City of Falls Church
Fairfax County Department of Public Works and Environmental Services (DPWES)
 Storm Water Planning Division
 Maintenance and Storm Water Management Division
 Forest Pest Management Program
Fairfax County Department of Management and Budget
Fairfax County Department of Information Technology
Fairfax County Park Authority
Fairfax Public Schools
Fairfax County Health Department
Fairfax County Office of the County Attorney
Fairfax County Office of Public Affairs
Fairfax County Police Department, Animal Control
Town of Herndon
Town of Vienna
Virginia Department of Transportation

IV. References and Links

Centers for Disease Control and Prevention (CDC)

-Pesticides and Public Health: Integrated Methods of Mosquito Management

<http://wwwnc.cdc.gov/eid/article/7/1/pdfs/70-0017.pdf>

-West Nile Virus

<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

-Lyme Disease

<http://www.cdc.gov/ncidod/dvbid/lyme/>

-Chikungunya Virus

<http://www.cdc.gov/chikungunya/>

-Zika Virus

<http://www.cdc.gov/zika/>

Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH)

-Information for Outdoor Workers:

--West Nile Virus

<http://www.cdc.gov/niosh/topics/westnile/>

--Lyme Disease

<http://www.cdc.gov/niosh/topics/lyme/>

Centers for Disease Control and Prevention (CDC) and Environmental Protection Agency (EPA)

-CDC/EPA Joint Statement on Mosquito Control

<http://www.epa.gov/mosquitocontrol/joint-statement-mosquito-control-united-states>

-CDC/EPA Joint Statement on Insect Repellents

<http://www.epa.gov/insect-repellents/joint-statement-insect-repellents-epa-and-cdc>

Environmental Protection Agency (EPA)

-Insect Repellent: Use and Effectiveness

<http://cfpub.epa.gov/oppref/insect/>

-Larvicides for Mosquito Control

<http://www2.epa.gov/mosquitocontrol/controlling-mosquitoes-larval-stage>

-Synthetic Pyrethroids for Mosquito Control

<http://www2.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrin-synthetic-pyrethroids-mosquito-control>

-Methods of Mosquito Control

<http://www.epa.gov/mosquitocontrol/>

Fairfax County Health Department (FCHD)

-West Nile Virus and Lyme Disease Web Page

<http://www.fairfaxcounty.gov/fightthebite>

U. S. Geological Survey (USGS)

<http://diseasemaps.usgs.gov/mapviewer/>

Virginia Department of Health (VDH)

-West Nile Virus Web page

<http://www.vdh.state.va.us/epidemiology/DEE/Vectorborne/WestNile/index.htm>

American Mosquito Control Association

<http://www.mosquito.org>

Mid Atlantic Mosquito Control Association

<http://www.mamca.org/>

Virginia Mosquito Control Association

<http://www.mosquito-va.org/>

National Pesticide Information Center

<http://npic.orst.edu/>

Abbreviations

ASTHO - The Association of State and Territorial Health Officials
BOS - Fairfax County Board of Supervisors
CB(s) - Catch Basin(s)
CDC - Centers for Disease Control and Prevention
CDPH - Chicago Department of Public Health
CO₂ - Carbon dioxide
CSF - Cerebrospinal Fluid
DC - District of Columbia
DCIP - Disease Carrying Insects Program
DCLS - Division of Consolidated Laboratory Services (of Virginia)
DEET - N,N-diethyl-m-toluamide (an insect repellent)
DPWES - Department of Public Works and Environmental Services
EEE - Eastern Equine Encephalitis
FCHD - Fairfax County Health Department
FDA - Food and Drug Administration
FIDO – Fairfax Inspections Database Online
IMM: Integrated Mosquito Management
MLE - Maximum Likelihood Estimate (a measure of infection rate of mosquitoes)
MWCOC - Metropolitan Washington Council of Governments
MSMS - Mosquito Surveillance and Management Subcommittee
OPA - Office of Public Affairs
PCR – Polymerase Chain Reaction (a test to detect genetic material)
RT-PCR - Reverse Transcriptase Polymerase Chain Reaction (a test to detect virus genetic material)
TTY – Text Telephone
ULV – Ultra-Low Volume
VA - Virginia
VDH - Virginia Department of Health
VDOT - Virginia Department of Transportation
WN - West Nile
WNV - West Nile virus

Definition of Terms as Used in this Report

Adulticide: An insecticide used to kill adult mosquitoes.

Antibody: A type of protein normally present in the body or produced in response to an antigen which it neutralizes, thus producing an immune response.

Antigen: A substance that stimulates an immune response (usually production of an antibody) when introduced into the body. Antigens include toxins, bacteria, viruses, and other foreign substances.

Arbovirus: An Arthropod-borne virus.

Asian tiger mosquito: Common name for *Aedes albopictus*.

BG-Sentinel Trap: A mosquito trap that attracts mosquitoes with its design and appearance, a special lure (BG-Lure) and CO₂ (produced by dry ice). A fan located below the intake tube sucks the mosquitoes into a collecting bag in the trap. The fan is powered by a 12 volt battery. This type of trap collects mosquitoes that are looking for hosts (which exhale CO₂ when they breathe and have a human skin scent). This trap is useful in collecting the Asian tiger mosquito, *Aedes albopictus*.

Borrelia burgdorferi: Scientific name of the bacteria that causes Lyme disease.

Breeding site: Larval mosquito habitat.

CDC miniature light trap: A mosquito trap that attracts mosquitoes with light and CO₂ (produced by dry ice). A fan located below a light source sucks the mosquitoes into a collecting receptacle on the trap. The light is powered by a six-volt battery and the trap is covered by a plastic roof. This type of trap collects mosquitoes looking for hosts (which exhale CO₂ when they breathe).

Common house mosquito: In our area it is the common name given to *Culex pipiens*.

Container breeder: Mosquito species that lay their eggs in artificial (e.g., cans, bottles, tires, birdbaths and even catch basins) or natural (e.g., tree holes) containers.

Day degrees above 75°F: The cumulative number of degrees Fahrenheit above 75° during the year.

DCIP: Disease Carrying Insects Program.

DEET: A synthetic chemical used as an ingredient in certain insect repellents. Recommended to protect against mosquitoes and ticks.

Encephalitis: Swelling of the brain (as can be caused by the West Nile virus).

Enhanced passive surveillance: Passive surveillance enhanced by general alerts to health care providers.

Epidemiological Week (EPI Week): This is a period of time that comprises seven days and is used to compare data from place to place and year to year. In the United States the first EPI Week is defined as the first week of the year ending on a Saturday, as long as four days of that year are included in that week.

Epizootic: An epizootic is the non-human equivalent of an epidemic, meaning that large numbers of animals are infected with a disease. An epizootic disease is one in which greater than normal numbers of animals are affected for a given place or time period.

Gravid traps: A mosquito trap baited with yeast-, grass- and hay-infused water that attracts female mosquitoes (primarily *Culex pipiens* and *Culex restuans*) that seek this type of water to lay eggs.

IgM antibodies: The first class of antibodies produced by the immune system in response to the presence of an antigen (e.g. West Nile virus). Presence of IgM antibodies usually indicates a primary or recent infection. Diagnostic laboratories test for the presence of WNV-specific IgM antibodies in human serum or cerebrospinal fluid in order to confirm a case of WNV.

IgG antibodies: The second class of antibodies produced by the immune system in response to the presence of an antigen (e.g. West Nile virus). Presence of IgG antibodies usually indicates a past infection. Diagnostic laboratories test for the

presence of WNV-specific IgG antibodies in human serum or cerebrospinal fluid, in order to confirm a case of WNV.

Integrated Mosquito Management: A comprehensive mosquito prevention/control strategy that utilizes all available mosquito control methods singly or in combination to exploit the known vulnerabilities of mosquitoes in order to reduce their numbers to tolerable levels while maintaining a quality environment.

IR3535: A synthetic chemical used as an ingredient in certain insect repellents. Recommended to protect against mosquitoes.

Larvicide: An insecticide used to kill mosquito larvae.

Lyme Disease: Lyme disease was first identified in 1975 in Lyme, Connecticut, and is a bacterial illness caused by *Borrelia burgdorferi*. The disease is transmitted through the bite of an infected blacklegged tick (*Ixodes scapularis*).

Medical community: Health care providers.

Meningitis: Swelling of the membrane covering the spinal cord or the membrane covering the brain (as can be caused by the West Nile virus).

Maximum Likelihood Estimate: An estimate of the maximum number of infected individuals per 1,000 tested. Recommended when pool sizes are variable and/or with large infection rates.

Mosquito Dunks®: A readily-available, non-restricted microbial larvicide which contains the active ingredient *Bacillus thuringiensis israelensis*. This product specifically targets mosquito larvae.

Mosquito larva (plural: larvae): The immature, aquatic, feeding stage of a mosquito. This is the stage that hatches from the mosquito egg and is the best target of a mosquito management program.

Mosquito pool: Mosquitoes that were collected in one location, on the same date, that have been grouped together (pooled) to be tested for the presence of a virus.

MSMS: Mosquito Surveillance Management Subcommittee. This is a subcommittee of Fairfax County's Environmental Coordinating Committee. The MSMS is composed of representatives from various county agencies and departments as well as other jurisdictions that have activities associated with DCIP.

Neuroinvasive: Affecting the nervous system. Refers to West Nile virus meningitis, encephalitis or other serious neurological pathologies.

Oil of lemon eucalyptus: A naturally-occurring chemical used as an ingredient in certain insect repellents. Recommended to protect against mosquitoes.

Overwinter: To pass the winter, like hibernation.

Ovitrap: Traps set out specifically to collect eggs of container-breeding mosquitoes, used to monitor species like the Asian tiger mosquito (*Aedes albopictus*).

Passive surveillance: Medical care providers or medical laboratories report notifiable diseases on a case-by-case basis to the local or state health agency, based upon a published list of conditions.

Pathogen: An infectious organism.

Permethrin: An insecticide that kills ticks and adult mosquitoes.

Polymerase Chain Reaction: A biochemical process that makes copies of a sequence of genetic material (DNA) so that its source can be identified.

Picaridin: A synthetic chemical used as an ingredient in certain insect repellents. Recommended to protect against mosquitoes.

Reverse Transcription Polymerase Chain Reaction: A biochemical process that makes copies of a sequence of genetic material (RNA) so that its source can be identified.

Storm drain: Inlet that permits rainwater to flow off the roadways or other surfaces. Part of the County's storm water management system

Trap period: Period of time elapsed from when one trap is set to when it is collected. The trap period presently used by the DCIP is 24 hours.

"Tip and Toss" campaign: Part of Fairfax County Disease Carrying Insects Program involving the community to remove standing water from their yards, thus reducing mosquito breeding habitats.

Ultra-Low Volume: A method of applying insecticides to kill adult mosquitoes. It produces very small droplets of insecticide and is usually applied by a truck- or aircraft-mounted machine at a constant, predetermined rate.

VectoLex®: A biological larvicide (*Bacillus sphaericus*) used in catch basins to proactively suppress mosquito populations.

West Nile fever: A febrile condition caused by the West Nile virus, very similar to the flu. The symptoms include fever, body aches, swollen glands, rash and headache.

West Nile virus: A virus transmitted by mosquitoes. The normal transmission cycle is between certain species of mosquitoes and certain species of birds. It can be transmitted to and cause disease in other animals and people.

West Nile virus "season": The period of time (usually May to October) marked by high mosquito activity and West Nile virus transmission.

Zumba™ Mosquito Trap: A mosquito trap. Trap design and appearance, the BG-Lure, and CO₂ (produced by dry ice) draw host-seeking mosquitoes to the trap. A fan located below an intake tube sucks the mosquitoes into a collection bag. The fan is powered by a 12-volt battery. This type of trap collects mosquitoes attracted to hosts (which exhale CO₂ when they breathe). This trap is good at collecting *Culex* mosquitoes as well as *Aedes albopictus*.

Acknowledgments

The Fairfax County Health Department (FCHD) would like to thank the members of the Mosquito Surveillance and Management Subcommittee (MSMS) of the County's Environmental Coordinating Committee for their guidance, and comments in the preparation of this document.

Parts of this plan are modeled after plans of the Centers for Disease Control and Prevention (CDC); the Virginia Department of Health (VDH); the Metropolitan Washington Council of Governments (MWCOCG); the American Mosquito Control Association (AMCA) and the Chicago Department of Public Health's (CDPH) 2003 WNV report. Recommendations and guidance were also obtained from a document issued by The Association of State and Territorial Health Officials (ASTHO).

AMCA

-Best Management Practices for Integrated Mosquito Management

<http://www.mosquito.org/assets/Resources/PRTools/Resources/bmpsformosquitomanagement.pdf>

CDC

-2013 West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control

<http://www.cdc.gov/westnile/resources/pdfs/wnvGuidelines.pdf>

MWCOG

West Nile Virus Response Plan for the National Capital Region

www.mwcog.org/uploads/pub-documents/BFZd20040109135919.pdf

ASTHO

Public Health Confronts the Mosquito: Developing Sustainable State and Local Mosquito Control Programs

<http://www.astho.org/WorkArea/DownloadAsset.aspx?id=2333>

Appendix 1

Disease Carrying Insects Program (DCIP) Integrated Mosquito Management Plan³

Integrated Pest Management (IPM) was first conceived as a means of achieving sustained, effective control of agricultural pests through concomitant employment of a wide range of control methodologies. IPM has been in widespread usage for many years and its success as a general strategy has led to usage of the term to describe an increasing number of approaches to control strategies — often leading to misunderstanding of its actual conceptual framework. To clarify the concept in terms of its relationship to the unique nature of mosquito prevention/control methodologies, we use the term Integrated Mosquito Management (IMM) in lieu of IPM.

Integrated Mosquito Management is a comprehensive mosquito prevention/control strategy that utilizes all available mosquito control methods singly or in combination to exploit the known vulnerabilities of mosquitoes in order to reduce their numbers to tolerable levels while maintaining a quality environment. IMM does not emphasize mosquito elimination or eradication. Integrated mosquito management methods are specifically tailored to safely counter each stage of the mosquito life cycle. Prudent mosquito management practices for the control of immature mosquitoes (larvae and pupae) include such methods as the use of biological controls (native, noninvasive predators), source reduction (water or vegetation management or other compatible land management uses), water sanitation practices as well as the use of EPA-registered larvicides. When source elimination or larval control measures are not feasible or are clearly inadequate, or when faced with imminent mosquito-borne disease, application of EPA-registered adulticides by applicators trained in the special handling characteristics of these products may be needed. Adulticide products are chosen based upon their demonstrated efficacy against species targeted for control, resistance management concerns and minimization of potential environmental impact.

IMM requires a thorough understanding of mosquitoes and their bionomics by control personnel; careful inspection and monitoring for their presence and conditions favoring their development; and prevention of oviposition and human/mosquito contact through effective public education, sanitation and facility maintenance. The Disease Carrying Insects Program strives to employ these IMM components to the extent possible, but resource availability may limit what the program will do.

³ Modified from the AMCA's BMP for IMM document at <http://www.mosquito.org/assets/Resources/PRTools/Resources/bmpsformosquitomanagement.pdf> accessed 12/10/10

All intervention measures will be driven by a demonstrated need based on surveillance data and action thresholds as defined in the DCIP Annual Report and Plan of Action.

INTRODUCTION

Since the need for mosquito control was recognized as a critical component of public health initiatives in the early twentieth century, increased knowledge of mosquito biology has driven the formulation of a variety of methodologies designed to successfully reduce both mosquito nuisance levels and mosquito-borne disease transmission. As the technologies and knowledge base from which these methodologies were derived have matured, they have been increasingly seen as mostly complementary or synergistic in nature, providing optimal control as part of an overall strategy. This has ultimately evolved into a strategy termed Integrated Mosquito Management (IMM). IMM has been developed to encourage a balanced usage of cultural and insecticidal methodologies and habitat manipulations in order to maximize control while minimizing adverse environmental impacts. IMM is knowledge-based and surveillance-driven, and when properly practiced is specifically designed to accomplish the following:

1. Protect human, animal and environmental health.
2. Promote a rational use of pesticides.
3. Reduce environmental contamination to soil, ground water, surface water, pollinators, wildlife and endangered species as a result of mosquito control activities.
4. Utilize biological controls (native, noninvasive predators) to conserve and augment other control methods.
5. Utilize source reduction (elimination, removal or reduction of larval mosquito habitats) where practical and prudent.
6. Use target specific pesticides at the lowest effective rates to the extent possible.
7. Emphasize the proper timing of applications.
8. Minimize pesticide resistance problems.

All mosquito control programs, including the DCIP mosquito control program are unique to their respective jurisdictions in terms of human population, topography, hydrology, and the bionomics of the mosquito species. Considerable judgment will be exercised in allocation of resources to extract the maximum benefit for both the citizens and the environment. It must be emphasized that program funding and other extrinsic factors will dictate the extent to which the DCIP will implement the Best Management Practices (BMPs) described herein.

To assist in this calculation, we will outline a series of BMP program elements that constitute a fully integrated approach to mosquito management. These BMPs will be viewed as minimums that will be performed in concert with the Virginia Pollutant Discharge Elimination System (VPDES) general permit that will be issued for mosquito control activities falling within the scope of Clean Water Act (CWA) requirements.

The extent and manner to which DCIP will meet or exceed these BMPs will be ultimately based on the best professional judgment of program personnel, occasionally

in consultation with other County agencies and government authorities in addition to resources available. It is important to emphasize that adherence to these BMPs to the maximum extent practicable is to be considered the necessary minimum to undertake or perform for purposes of regulatory compliance with VPDES general permit for mosquitocide use.

Best Management Practices for Mosquito Management

Best Management Practices (BMP) will be the fundamental approach to mosquito management in Fairfax County. It is acknowledged that the DCIP does not have the resources to practice all of the specific sub-elements discussed herein, and it will draw on other County agencies or Contractors as deemed necessary to do so. The DCIP will strive to adhere to these BMPs to the maximum extent practicable and will maintain documentation (see attached DCIP Plan to Employ the Nine BMP Components of the Pesticide Discharge Management Plan (PDMP) as Part of the Operative VPDES Permit) as to how we intend to employ the BMP components listed below in a Pesticide Discharge Management Plan (PDMP) as part of the operative NPDES permit.

1. Surveillance — Surveillance is the backbone of all IMM programs. It identifies problem mosquito species and their population trends in order to direct and evaluate control methods.
 - a. Determine species to ensure that the most appropriate control methodologies are chosen.
 - i. Visually check jurisdiction for potential oviposition habitat and larval populations present that could contribute to unacceptable adult mosquito populations and determine if larval control is appropriate within established parameters.
 1. Park Areas - swamps, marshes, woodland pools, flooded fields/pastures, roadside ditches, storm water retention ponds, tree holes, etc.
 2. Urban - flower pots, tires, trash containers holding water, gutters, tree holes, septic ditches, roadside ditches, lawn swales, non-functional swimming pools, stagnant bird baths, street catch basins, junk yards, depressions in tarp covers, etc.
 - ii. Determine population levels of adult mosquitoes using professionally acceptable techniques, including service requests, trap or collection data, to establish needs for action.
 - b. Monitor fluctuations in mosquito populations.
2. Mapping — Utilize maps of appropriate scale to continually monitor major sources of larval/adult mosquitoes in addition to documenting areas where control measures have been instituted. These maps will define treatment areas and can be used as appropriate in the PDMP.
3. Set Action Thresholds — Decisions to initiate control measures will be based on the analysis of either larval or adult mosquito surveillance or other available field data. Programs must establish a mechanism on which decisions to institute control measures are based.

- a. Determine which methodology shall be used to determine if and when control measures are instituted.
 - i. For control of immature stages of mosquitoes, this methodology can consist of numbers of larvae and pupae observed in dip counts or observation of their presence in water sources.
 - ii. For adult mosquito control this methodology can consist of
 1. Number and pattern of citizen's service requests.
 2. Visual — numbers of mosquitoes landing on inspector/applicator within one-minute periods while performing duties. Performance of landing rate counts is not advised in the County due to mosquito-borne disease activity.
 3. Counts of adult female mosquitoes collected.
 - b. DCIP has determined threshold values that trigger routine control measures. These values are meant to be for guidance only due to the myriad other factors that can influence when control operations are instituted — particularly in incipient disease scenarios or mosquito-borne disease prevention.
4. Physical Control or Source Reduction — Source reduction (the elimination, removal or modification of larval mosquito habitats) typically is the most effective and economical long-term method of mosquito control, but this may not be practicable for many larval habitats. Source reduction can be as simple as overturning a discarded bucket or disposing of a waste tire or as complex as habitat modification through Open Marsh Water Management techniques. These efforts often minimize and/or eliminate the need for mosquito larviciding in the affected habitat in addition to greatly reducing the need for adulticiding in nearby areas.
- a. Determine feasibility of removing or modifying oviposition sites.
 - b. Encourage proper water management by public/private agencies responsible for storm water retention/detention structures and ditch and impoundment maintenance.
 - c. Maintain familiarization with jurisdiction health nuisance abatement policy.
5. Biological Control — Biological control methodologies are often resource-intensive and have not been found to be practicable in Fairfax County. Nonetheless, their utilization will be held in reserve in case the need ever appears.
- a. Even stocking of certain species of native, non-invasive fish known to be predators of mosquito larvae is not readily allowed by the Virginia Department of Game and Inland Fisheries, particularly in waterways where they don't occur, even though they occur in adjacent water sources.
 - b. Utilization of bats, birds, dragonflies and other putative predators of mosquitoes can be both ecologically problematic and ineffective as a primary control strategy and is therefore not recommended as a major component of any control strategy.
6. Public Health Mosquitocides — handling, disposal, personal protective measures and applications must be made in full accordance with product label specifications.
- a. Larvicides — Often may be the primary control method in natural or man-made wetlands (salt marshes or tidal wetlands, riverine bottomlands, woodland pools, freshwater marshes, meadow swales, roadside ditches, stormwater management

ponds, etc.). These can also be a primary control method in locations where mosquito populations are determined to be arising from defined, concentrated sources in urban areas or in close proximity to houses. Due to continual influx of adult mosquitoes from outlying areas, larviciding programs may have limited visible effect on mosquito populations in jurisdictions lacking resources to adequately larvicide outlying production areas.

i. Several materials in various formulations registered by EPA are labeled for mosquito larviciding. Choice of active ingredient and formulation chosen will depend on site- specific factors and resistance management, and may include:

1. Biological larvicides

a. Microbial larvicides

b. Growth regulators and chitin synthesis inhibitors

c. Alcohol-derived monomolecular surface films

2. Chemical larvicides

a. Organophosphates

b. Oils — petroleum and mineral-based

ii. Larvicides will minimize impacts to non-target organisms. Larvicide formulations (e.g., liquid, granular, solid) must be appropriate to the habitat being treated, accurately applied and based on surveillance data or preemptively applied to known oviposition sites.

iii. Larvicide application equipment will be calibrated and maintained per equipment manufacturer's specifications and timetable, or per instructions from product registrant.

b. Adulticides — Adulticides are applied so as to impinge upon the mosquito target in flight or at rest on vegetation. Adulticiding based on surveillance data is an extremely important part of any IMM program, and may form the primary treatment method for many programs where comprehensive larviciding is not practical.

Adulticides are typically applied as an Ultra-Low-Volume (ULV) spray where small amounts of insecticide are dispersed by aircraft or truck-mounted equipment. Adulticides may also be applied via "thermal fogs", utilizing heat to atomize droplets. Adult mosquitoes may also be targeted by "barrier treatments", which involve application of a residual insecticide to vegetation where mosquitoes are known to rest.

i. Adulticides will only be applied when established spray thresholds have been exceeded.

ii. Non-residual adulticides applied to the air column in order to impinge upon mosquitoes in flight will only be applied when the target species is active.

iii. Adulticides will be applied strictly according to label specifications. This will produce minimal effects on non-target organisms and promote efficacy. Adulticides will not be applied in rainy or windy conditions.

- iv. Adulticides will only be applied by personnel trained or certified in their usage and handling, or when operating under the supervision of an individual having met the necessary certification requirements.
 - v. Adulticides labeled for mosquito control in part may include:
 - 1. Organophosphates
 - 2. Natural pyrethrins
 - 3. Pyrethroids
 - 4. Pyrethroid derivatives
 - vi. Adulticides will be applied at label rates that are efficacious as determined by monitoring. Applying doses lower than those that provide adequate control can in fact result in the need for additional adulticide treatments and might encourage development of insecticide resistance.
 - c. Adulticide application equipment will be calibrated and maintained per equipment manufacturer's specifications and timetable, or per instructions from the product registrant to ensure performance meets product label specifications.
7. Monitoring for Efficacy/Resistance — Resistance management techniques attempt to minimize the risk of mosquitoes becoming resistant to the existing chemicals and will be practiced in even basic programs.
- a. Basic resistance management techniques can include:
 - i. Utilizing physical control/source reduction and biological control methodologies to the maximum extent practicable.
 - ii. Avoiding the use of the same class of chemical against both immature and adult mosquitoes.
 - iii. Applying pesticide at the rate recommended on the label. Do not underdose.
 - iv. Utilizing a different chemical class at the beginning and end of treatment season.
 - v. Assessing susceptibility at the beginning and sometime during the mosquito season.
 - b. Resistance management can also involve utilizing surveillance methods following larvicide or adulticide applications to continually check for control efficacy.
8. Education & Community Outreach — IMM is knowledge-based and involves a concerted effort by both control personnel and the community to manage mosquito populations based upon informed decision-making.
- a. Education of the general public will be encouraged to enlist resident's support in disposing of (or modifying) oviposition habitat, proper screening methods and proper application of personal protective measures such as repellents to minimize human/mosquito contact.
 - b. Mosquito control programs will keep their constituents informed of surveillance and control activities to the maximum extent practicable.
 - c. Mosquito control personnel are strongly encouraged to maintain and upgrade their professional knowledge through continuing education training and/or attendance at professional conferences.

9. Record-keeping — Operators/applicators will record the following for each application and maintain the records for the time specified by the lead regulatory agency:

- a. Applicator's name, address and pesticide applicator certification number (if applicable)
- b. Application date and time of day
- c. Product name and EPA registration number
- d. General location of application and approximate size of area treated
- e. Amount of material applied
- f. Rate of application

DCIP Plan to Employ the Nine BMP Components of the Pesticide Discharge Management Plan (PDMP) as Part of the Operative VPDES Permit

1. Surveillance

- a. Surveillance methods chosen.
 - i. Visually check for larval habitats and larval populations and determine if larval control is appropriate. Ovitrap may be used in specific occasions.
 1. County Property – treatment of Park areas will only be carried out in total coordination with the Fairfax County Park Authority.
 2. Private Property - residents will be encouraged to identify habitats and larval populations on their property, DCIP staff will assist upon request.
 - ii. Relative abundance of population levels of adult mosquitoes will be determined using one or more of the following trap types: CDC miniature light traps, gravid traps, BG-Sentinel trap, Zumba traps, Faye-Prince traps or other novel traps.
- B. Adult mosquito population fluctuations will be determined using traps in ~70 selected collecting sites throughout the County that have been used since 2004.
 - i. Species composition
 - ii. Species density
 - iii. Mosquito testing
 - iv. Infection rate calculation
 - v. Vector index calculation
 - vi. Human WNV case registration

2. Mapping: In collaboration with the GIS section of the Division of EH, maps will be prepared to monitor major sources of larval/adult mosquitoes and to document areas where control measures have been instituted. Maps will help define treatment areas and can be used as appropriate in the PDMP.

3. Action Thresholds

- a. Methodology
 - i. For control of immature stages

- Per dip
- Visual observation
- ii. For adult mosquitoes
 - Per trap period (including trap type)
 - Infection rate
 - Human cases of WNV
- b. Threshold values that trigger routine control measures.
 - i. For control of immature stages:
 - An average of three immature forms per dip (with a minimum of three dips) in non-container habitats or
 - The presence of immatures in artificial containers
 - ii. For adult mosquito control this methodology has been defined in the “Plan of Action” as follows:
 - **Level 0**
Definition: Fall/winter; vector inactive, climate unsuitable for WNV transmission.
Response: Prepare material and equipment for the upcoming WNV season. Surveillance and control programs continue as outlined in the County’s Surveillance and Control Plan. Identify locations where source reduction activities can be applied; secure surveillance and control resources necessary to enable response to WNV activity; initiate community outreach and public education programs; enhance communication with surrounding jurisdictions; recruit and train new staff; communicate with and educate large property owners of the importance of source reduction in areas such as cemeteries, golf courses, country clubs; communicate status of WNV activity to Director of the Health Department, the Board of Supervisors and the public, as the WNV season starts.
 - **Level 1**
Definition: Spring/summer/fall; anticipating WNV activity based on previous activity in region. No current surveillance findings indicating WNV activity in the area.
Response: Respond as in level 0, plus: continue and enhance source reduction; conduct larval control in identified breeding habitats where source reduction is not possible (emphasis will be placed on known *Culex* species breeding sites); continue community outreach and public education; begin monitoring avian mortality; work with other County departments on source reduction and mosquito control activities; initiate catch basin treatment rounds.
 - **Level 2**
Definition: Spring/summer/fall; initial, sporadic or limited WNV activity in birds and/or mosquitoes.

Response: Respond as in level 1, plus: increase larval control activities; continue source reduction in cooperation with other County departments; and increase public education, emphasizing personal protection measures, particularly the use of products containing DEET, Picaridin, IR-3535 or oil of lemon eucalyptus. Enhance human surveillance and activities to quantify epizootic activity (e.g. mosquito trapping and testing) in areas of concern. Consider recommending to the public that they decrease outdoor activities when mosquitoes are biting.

• **Level 3**

Definition: Spring/summer/fall; initial confirmation of WNV in a human or a horse, or moderate WNV activity in birds and/or mosquitoes.

Response: Respond as in level 2, plus: expand public information programs (repellent use, personal protection, source reduction, risk communication about adult mosquito control program); prepare to implement adult mosquito control, if surveillance findings indicate the likely potential for human risk to persist or increase.

• **Level 4**

Definition: Spring/summer/fall; surveillance findings indicate high risk of human infection, (e.g. high or clusters of dead bird densities, high mosquito infection rates and vector index, multiple positive mosquito species, horse or other mammalian cases indicating increasing epizootic transmission, or a human case and high levels of epizootic activity) and abundant adult vectors.

Response: Respond as in level 3, plus: continue active surveillance for human cases; make final arrangements to implement adult mosquito control program in areas of potential human risk. The use of adulticides will be used in a limited manner as needed.

• **Level 5**

Definition: Spring/summer/fall; marked increase of confirmed multiple WNV cases in humans and conditions favoring continued transmission to humans.

Response: Respond as in level 4, plus: implement or intensify emergency adult mosquito control program; monitor effectiveness of adulticiding on target mosquito populations; coordinate adult mosquito control activities with surrounding jurisdictions. The FCHD activities related to adulticiding will include the following:

- CDC and gravid traps will be used in the treatment area if additional surveillance data are required.
- The FCHD will work with state entomologist and/or CDC personnel, as well as the contractor, to design and

- implement feasible measures to monitor the efficacy of the adulticiding activities.
 - The public will be notified of adulticide schedules in advance. This will allow residents with special health concerns sufficient time to take any precautions to reduce pesticide exposure (see Public Education and Community Outreach).
 - Hospitals will be notified regarding the adulticiding schedule. Information on the pesticide used will be provided to the public, physicians, and other health care providers.
 - Adult mosquito control will be scheduled when mosquitoes are active and weather conditions are conducive to its success.
 - Information will be released, in advance, through the media, the FCHD WNV Web page, and through news releases, the MSMS, as well as pertinent County and community.
- 4. Physical Control or Source Reduction
 - a. Removing or modifying oviposition sites.
 - b. Encourage proper storm water management practices.
- 5. Biological Control
 - a. None foreseen.
- 6. Public Health Mosquitocides.
 - a. Larvicides
 - i. Biological larvicides
 - a. Microbial larvicides
 - 1. *Bacillus thuringiensis israelensis* (Bti)
 - 2. *Bacillus sphaericus* (Bs)
 - 3. Spinosad
 - b. Growth regulators and chitin synthesis inhibitors
 - 1. (S)-Methoprene
 - c. Alcohol-derived monomolecular surface films
 - 1. Monomolecular films
 - ii. Chemical larvicides
 - a. Larvicidal oils
 - b. Temephos
 - b. Adulticides
 - i. Adulticides will only be used with authorization from the County Executive.
 - ii. Adulticides will only be applied when thresholds have been exceeded.
 - iii. Non-residual adulticides applied to the air column will only be applied when the target species is active.
 - iv. Adulticides will be applied according to label specifications.
 - v. Adulticides will not be applied in rainy or windy conditions.
 - vi. Adulticides will only be applied by trained or certified personnel.
 - vii. Adulticides labeled for mosquito control in part may include:

1. Pyrethrins
 2. Synthetic Pyrethroids, Pyrethroid Derivatives, Permethrin
- viii. Adulticides will be applied at label rates.
- c. Adulticide application equipment will be calibrated and maintained per specifications and timetable.
7. Monitoring for Efficacy/Resistance.
 - a. Basic resistance management techniques will include:
 - i. Utilizing physical control/ source reduction and biological control methodologies to the maximum extent practicable.
 - ii. Not using the same class of chemical against both immature and adult mosquitoes.
 - iii. Applying pesticide at the rate recommended on the label.
 - v. Assessing susceptibility when deemed necessary by the resident entomologist.
 - b. Utilizing surveillance methods following larvicide or adulticide applications.
8. Education & Community Outreach.
 - a. The public will be encouraged to enlist resident's to dispose of (or modifying) oviposition habitat, and proper application of repellents.
 - b. Inform constituents of surveillance and control activities.
 - c. Maintain and upgrade personnel's knowledge.
 - d. Outreach and Educational material will be evaluated yearly and updated as necessary
 - e. Material will be produced annually
 - i. 18-month Calendar
 - ii Children's reader
 - iii Reprinting material as necessary.
9. Record-keeping.
 - a. Applicator's name, address and pesticide applicator certification number (if applicable)
 - b. Application date and time of day
 - c. Product name and EPA registration number
 - d. General location of application and approximate size of area treated
 - e. Amount of material applied
 - f. Rate of application

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ACTION – 5

Approval of Project Funding Adjustments for the Transportation Priorities Plan

ISSUE:

Board approval of funding for transportation projects that were not identified in the Transportation Priorities Plan (TPP). In addition, staff is informing the Board of reallocations associated with the TPP.

RECOMMENDATION:

The County Executive recommends that the Board approve funding for the following projects:

1. \$1,200,000 for warranted traffic signals throughout the County,
2. \$ 500,000 for Old Telegraph Road Walkway,
3. \$ 460,000 to extend southbound Fairfax County Parkway (FCP) left turn lane storage at John J. Kingman Road (JKR),
4. \$7,250,000 for the purchase of property associated with a road extension in Bailey's Crossroads. \$6,350,000 million will be for the purchase of the land, and the remaining \$900,000 will be used for demolition of the office building currently on the property.

Although these projects were not included in the TPP, most have been discussed with the Board. Funding is needed to move these projects forward prior to the next TPP update. The circumstances which result in the need to advance these projects are described below.

TIMING:

The Board should act on this item on March 1, 2016, so staff can begin implementation of projects as expeditiously as possible.

BACKGROUND:

This approval request is necessary to address immediate project needs. This approval will ensure that major County transportation projects remain funded and continue towards implementation.

Funding for Warranted Traffic Signals – There is a need for new traffic signals at various intersections throughout the County. Any location for a proposed traffic signal would need to meet federal guidelines that establish minimum conditions under which signal installation should be considered. These guidelines help identify potential locations for signals, but each location would be reviewed before a signal is installed. A traffic engineering study would also be required to determine if a signal is needed.

Currently, no funding exists to address the needs of new signal installations. Staff requests Board approval in the amount of \$1,200,000 from construction reserves in Fund 40010 (County and Regional Transportation Projects) to fund needed traffic signal installations. This should accommodate approximately four traffic signal installations.

Funding for Old Telegraph Road Walkway – In Summer 2015, a property owner expressed willingness to donate property for the installation of a missing sidewalk link adjacent to Hayfield High School. Given the proximity of this missing link to the high school, staff wants to take this opportunity to advance the project. The donation of right-of-way will save the County approximately \$7,500. This project would install approximately 375 feet of new walkway on Old Telegraph Road adjacent to Hayfield High School. Staff requests funding in the amount of \$500,000 from construction reserves in Fund 40010 to implement this project.

Funding for Fairfax County Parkway (FCP) Improvements – In December 2015, staff presented the results of an operational traffic study that was done for the FCP between Route 1 and I-95 to the Board Transportation Committee (BTC). The study resulted in short term, low cost projects to improve traffic on the corridor. One of these projects is the extension of the southbound (SB) FCP left turn lane storage at John J. Kingman Road (JKR).

The project consists of increasing the storage capacity of the southbound FCP left turn lanes at JKR by extending the SB left turn lanes. The extensions would be implemented using space from the existing grass median, and would require no additional right-of-way. Doing so will allow vehicles turning left to clear the left most SB through lanes. Staff requests funding in the amount of \$460,000 from construction reserves in Fund 40010 to advance implementation of this project.

In addition, staff will be advancing implementation of the Backlick Road Connection. This project was also shared with the BTC in December 2015. The project consists of realigning the south approach of Backlick Road to change the T-intersection orientation and increase the storage length. The realignment of the south approach of Backlick Road can be implemented and tested with a combination of pavement marking and temporary devices. New permanent curb and gutter is not considered as part of this improvement, but may be explored as part of subsequent phases of this project. The

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planning level estimate for the project is \$96,000, which will be allocated from construction reserves from Fund 40010. According to the funding allocation policy for FCDOT approved by the Board in March 2011, the Board is to be notified that the department intends to advance this new transportation project.

Funding for Property Associated with the New Connection between Columbia Pike and Seminary Road - On December 8, 2015, the Board authorized advertisement of a public hearing on January 12, 2016, to consider disposition of the County Land in connection with a Real Estate Exchange Agreement with Avalon Bay providing for an exchange of real property and joint infrastructure development that will be necessary for the proposed residential development and the East County Human Services Center (ECHSC) site.

The ECHSC would be located on the eastern portion of the site, fronting on a new connector road that would align with an existing traffic signal on Columbia Pike. This new connector road would be the first phase of the Seminary Road realignment, which is necessary to improve traffic circulation in this sector of Bailey's Crossroads, as envisioned by the Comprehensive Plan. The initial step is for the County to purchase the Landmark Parcel to effectuate the first phase of the road network envisioned by the Comprehensive Plan, and to allow for development of the entire site in a more comprehensive, cost effective manner.

The Board was informed that Department of Transportation (DOT) staff would identify available funding and return to the Board at a later date seeking funding approval. DOT has identified \$7,250,000 in construction reserves from Fund 40010 to fund the land acquisition costs of \$6,350,000, and \$900,000 to cover demolition costs of an existing structure on the property.

Other Project Implementation Activities Associated with the TPP – On March 29, 2011, the Board approved a funding allocation policy for DOT that allowed for more efficient utilization of local funds on transportation projects. Under the guidelines of this policy, staff is required to notify the Board when: 1) new projects under \$250,000 are identified and advanced, and 2) projects previously approved by the Board exceed approved funding amount by more than \$250,000 and less than \$1,000,000.

On January 28, 2014, the Board approved its' TPP, identifying projects it wanted to fund through FY 2020. Staff has included in this Board item additional information to make the Board aware of some of the progress associated with the implementation of the TPP.

As part of these priorities, the Board approved several set asides for major roadway, transit, spot roadway, and bicycle and pedestrian projects. As required by the March 29,

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2011, delegation, FCDOT is informing the Board that funding has been allocated to the following projects:

- \$547,300 – Additional funding needed for the VDOT intersection agreement (explained below, Spot Roadway Reserve). Of the total funding allocated, \$55,000 will be used for the installation of a Rectangular Rapid Flashing Beacon (RRFB) on Pleasant Valley Road at Wetherburn. The Board is being notified of staff's intent to advance these projects using local funds, unless the Board objects.
- \$ 96,000 – Funding needed for the Backlick Road Connection (explained above, Spot Roadway Reserve). The Board is being notified in this Board item that FCDOT is proceeding with this improvement.

VDOT Intersection Improvement Agreement - On October 7, 2014, the Board approved a project funding agreement with VDOT in the amount of \$2.8 million for full implementation of nine intersection projects approved by the Board in the TPP. This agreement has served for advancing Board approved projects by VDOT more expeditiously, and cost effectively. To date, seven intersection improvement projects have been completed, and eight more are under construction. This agreement has proven to be an effective method for project delivery. On January 5, 2016, the Board was notified via memorandum (Attachment I) of project accomplishments using this agreement.

Based on VDOT's ability to implement these types of projects quickly, and at a lower cost, staff is currently working with VDOT to amend this agreement. The amendment will include five additional projects, and a transfer of local funds to VDOT in the amount of \$547,300. Funding for four of the projects was approved by the Board on May 14, 2013, under the Tysons Metrorail Station Access Management (TMSAMS) agreement with VDOT. To expedite these projects, construction at these sites will be funded using local revenues. The fifth project will be the installation of a RRFB on Pleasant Valley Road at Wetherburn.

FISCAL IMPACT:

Total funding of \$10,053,300 is available in Fund 40010 (County and Regional Transportation Projects) in project 2G40-001-000, Construction Reserve. There is no impact to the General Fund.

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ENCLOSED DOCUMENTS:

Attachment I – Transportation Project Accomplishments

STAFF:

Robert A. Stalzer, Deputy County Executive

Tom Biesiadny, Director, FCDOT

Todd Wigglesworth, Chief, Coordination and Funding Division (CFD), FCDOT

Todd Minnix, Chief, Transportation Design Division, FCDOT

Eric Teitelman, Chief, Capital Projects and Traffic Engineering Division (CPTED),
FCDOT

Karyn Moreland, Chief, CPTED, FCDOT

Ray Johnson, Transportation Planner, CFD, FCDOT



County of Fairfax, Virginia

MEMORANDUM

DATE: January 5, 2016

TO: Members, Fairfax County Board of Supervisors

FROM: Tom Biesiadny, Director
Department of Transportation

A handwritten signature in dark ink, appearing to be "TB", is written over the printed name and title of the sender.

SUBJECT: Transportation Project Accomplishments

I want to share with you several recent construction accomplishments and the status of other ongoing projects in the Six Year Transportation Priorities Plan approved by the Board in January 2014.

These traffic signal related projects were identified by staff as projects that could be quickly designed and constructed by utilizing existing Virginia Department of Transportation (VDOT) contractors. By utilizing VDOT's resources, we were able to reduce both project costs and implementation schedules. Each of these accomplishments would not be possible without assistance from the VDOT. Going forward, FCDOT staff is looking for additional project opportunities where utilizing this same process can reduce project implementation times and costs.

If you have any questions or need additional information, please contact Bill Harrell at 703-877-6767.

cc: Edward L. Long Jr., County Executive
Robert A Stalzer, Deputy County Executive
Catherine A. Chianese, Assistant County Executive
Anna Nissinen, Public Information Officer, FCDOT

Mason District

Intersection: Edsall Road at Montgomery Street
Scope: Add pedestrian countdown signal heads
Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Mason District

Intersection: Little River Turnpike at Old Columbia Pike
Scope: Add pedestrian countdown signal heads. Up-grade curb cut ramps to current ADA standards. Re-construct pedestrian island to enhance pedestrian safety.
Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



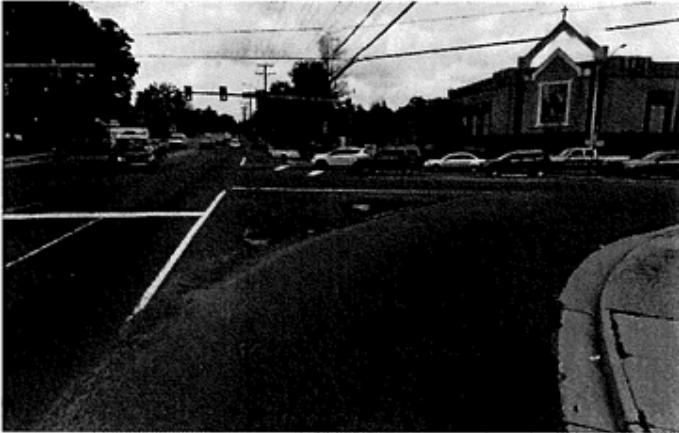
Mason District

Intersection: Backlick Road at Edsall Road

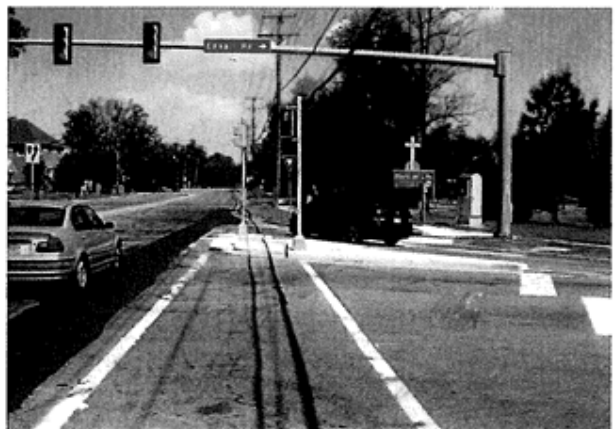
Scope: Add pedestrian countdown signal heads. Up-grade curb cut ramps to current ADA standards. Re-construct pedestrian island to enhance pedestrian safety.

Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Providence District

Intersection: Arlington Blvd. at Gallows Road
Scope: Add pedestrian countdown signal heads. Up-grade curb cut ramps to current ADA standards
Status: Construction Completed – The ADA ramps on the bridge deck will be upgraded with VDOT's bridge rehabilitation project.

PRE CONSTRUCTION



POST CONSTRUCTION



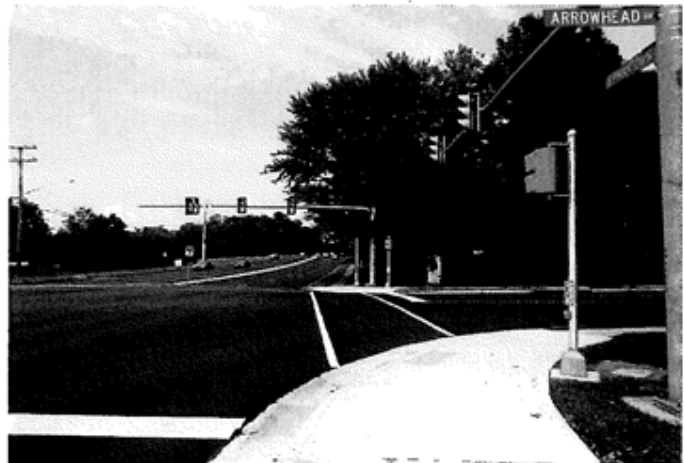
Providence District

Intersection: Jermantown Road at Arrowhead Drive / Oak Marr Recreation Center
Scope: Add pedestrian countdown signal heads. Up-grade curb cut ramps to current
ADA standards
Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Other ongoing projects in the Providence District that VDOT is doing on behalf of Fairfax County include:

- Lee Highway and Vaden Drive. This is a joint project with VDOT and the Park Authority that will provide a signalized pedestrian crossing of Lee Highway at Vaden Drive and complete the pedestrian facility connection from the Circle Towers Apartments to Vaden Drive. This project is currently in the design phase. The anticipated completion in spring of 2016.
- Chain Bridge Road at Boone Boulevard. This project falls in both the Providence and Hunter Mill Districts. This project will provide a pedestrian signal for pedestrians crossing Chain Bridge Road, and provide ADA compliant curb ramps. This project is currently under construction. The anticipated completion in March of 2016.
- Leesburg Pike and Gosnell Road. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.
- Leesburg Pike and Spring Hill Road. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.
- Leesburg Pike and Tyco Road / Westwood Center Drive. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.

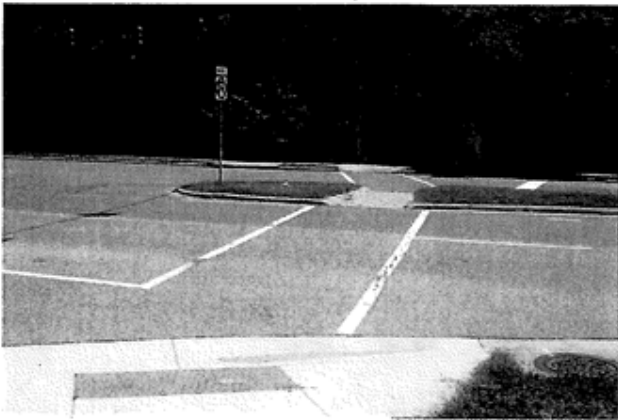
Lee District

Intersection: Franconia Road at Telegraph Road

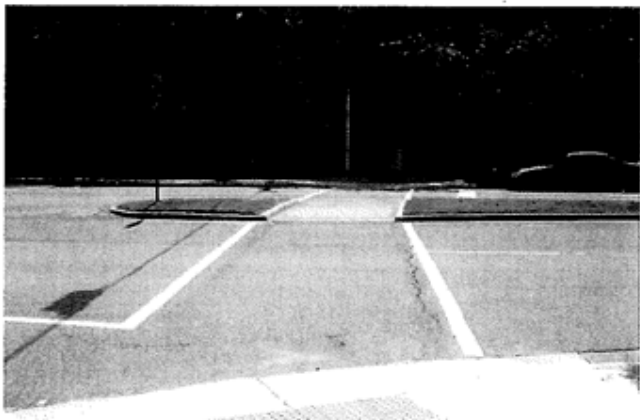
Scope: Add and upgrade pedestrian countdown signal heads. Up-grade curb cut ramps to current ADA standards.

Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Lee District

Intersection: Lynbrook Elementary School Sidewalk

Scope: Upgrade the existing sidewalk from the Lynbrook Elementary School to the future HAWK traffic signal.

Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Other ongoing projects in the Lee District include:

- HAWK traffic signal on Backlick Road north of Lynbrook Elementary School. This project is currently on hold because of a private property issue. Construction will be completed after right of way is secured.

Braddock District

Intersection: Braddock Road and Olley Lane

Scope: Add pedestrian countdown signal heads. Up-grade curb cut ramps to current ADA standards

Status: Construction Completed

PRE CONSTRUCTION



POST CONSTRUCTION



Dranesville District

Ongoing projects in the Dranesville District that VDOT is implementing on behalf of Fairfax County include:

- Leesburg Pike and Utterback Store Road. This project scope includes a signalized pedestrian crossing of Leesburg Pike and Utterback Store Road. The project includes a pedestrian island. This project is in the design phase.

Hunter Mill District

Ongoing projects in the Hunter Mill District that VDOT is implementing on behalf of Fairfax County include:

- Chain Bridge Road at Boone Boulevard. This project falls in both the Providence and Hunter Mill Districts. This project will provide a pedestrian signal for pedestrians crossing Chain Bridge Road, and provide ADA compliant curb ramps. This project is currently under construction. The anticipated completion in March of 2016.
- Baron Cameron Avenue at Lake Fairfax Drive. This project scope includes a signalized pedestrian crossing of Baron Cameron Avenue and a connection to the trail which runs on the north side of Baron Cameron Avenue. This project is currently in the design phase, and the anticipated completion in spring of 2016.
- Leesburg Pike and Gosnell Road. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.
- Leesburg Pike and Spring Hill Road. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.
- Leesburg Pike and Tyco Road / Westwood Center Drive. This project falls in both the Providence and Hunter Mill Districts. This project will include an additional signalized pedestrian crossing at Route 7 and new curb ramps. This project is scheduled for completion in January 2016.

Sully District

Ongoing projects in the Sully District that VDOT is implementing on behalf of Fairfax County include:

- Lee Jackson Highway at Centerview Drive / Sullyfield Circle. This project includes signalized pedestrian crossings of Lee Jackson Highway and Centerview Drive / Sullyfield Circle. This project will include new pedestrian refuge islands as well as new curb ramps to meet ADA standards. This project is currently in the construction phase and construction is scheduled to be completed in January 2016.
- Centreville Road and Machen Drive. This project includes signalized pedestrian crossings of Centreville Road and Machen Drive. This project is currently in the construction phase and construction is scheduled to be completed in February of 2016.

Springfield District and Mount Vernon District

- There were no projects in the Springfield and Mount Vernon Districts that were identified as projects that could be quickly designed and constructed by utilizing existing VDOT contractors. Staff continues to look for opportunities to expand this program.

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10:20 a.m.

Matters Presented by Board Members

11:10 a.m.

CLOSED SESSION:

- (a) Discussion or consideration of personnel matters pursuant to Virginia Code § 2.2-3711(A) (1).
 - (b) Discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body, pursuant to Virginia Code § 2.2-3711(A) (3).
 - (c) Consultation with legal counsel and briefings by staff members or consultants pertaining to actual or probable litigation, and consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel pursuant to Virginia Code § 2.2-3711(A) (7).
-
- 1. *Lenir Richardson v. Officer O.J. Faulk, Officer D.N. Custer, Officer Rizza, Commonwealth of Attorney [sic], Sergeant Mario Torres*, Case No. 1:15cv1489 (E. D. Va.)
 - 2. *Anthony D. Craft v. County of Fairfax, Virginia*, Case No. 1:16cv86 (E.D. Va.)
 - 3. *Randy H. Hadijski and Dimitri Hadijski v. County of Fairfax Department of Planning and Zoning*; Case No. CL-2015-0016225 (Fx. Co. Cir. Ct.) (Lee District)
 - 4. *Wilson Haywood Phillips v. Fairfax County Park Authority and Fairfax County*, Case No. CL-2015-0012152 (Fx. Co. Cir. Ct.)
 - 5. *Amy Marshall v. Damien Cichocki*, Case No. CL-2015-0009608 (Fx. Co. Cir. Ct.)
 - 6. *In Re: Decision of September 17, 2014, of the Board of Zoning Appeals of Fairfax County, Virginia, and Jonathan Clark and Carolyn Clark v. Fairfax County Board of Supervisors, Leslie B. Johnson, Zoning Administrator, and Jeffrey L. Blackford, Director, DCC*, CL-2014-0013587 (Fx. Co. Cir. Ct.) (Mason District)
 - 7. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Marsha G. Savage*, Case No. CL-2010-0013693 (Fx. Co. Cir. Ct.) (Lee District)
 - 8. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Rama Sanyasi Rao Prayaga and Niraja Dorbala Prayaga*, Case No. CL-2012-0019078 (Fx. Co. Cir. Ct.) (Dranesville District)
 - 9. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Rama Sanyasi Rao Prayaga and Niraja Dorbala Prayaga*, Case No. CL-2010-0002573 (Fx. Co. Cir. Ct.) (Dranesville District)

10. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Steven C. Bryant*, Case No. CL-2009-0005546 (Fx. Co. Cir. Ct.) (Sully District)
11. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. John R. Ross, III, and Alice W. Ross*, Case No. CL-2015-0011118 (Fx. Co. Cir. Ct.) (Hunter Mill District)
12. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Jubilo Incorporated*, Case Nos. GV15-015625, and GV15-026466 (Fx. Co. Gen. Dist. Ct.) (Sully District)
13. *Leslie B. Johnson, Fairfax County Zoning Administrator, and Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Gregory Miklasiewicz*, Case Nos. GV15-028913 and GV15-028914 (Fx. Co. Gen. Dist. Ct.) (Braddock District)
14. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Michael Ching*, Case No. GV15-026821 (Fx. Co. Gen. Dist. Ct.) (Sully District)
15. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Andrea Viski and Brian Lucas*, Case No. GV16-002241 (Fx. Co. Gen. Dist. Ct.) (Mount Vernon District)
16. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Ali Matthew Bastani*, Case No. GV16-002242 (Fx. Co. Gen. Dist. Ct.) (Providence District)

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Board Agenda Item
March 1, 2016

2:30 p.m.

Snowzilla Snow Summit

The Board of Supervisors will meet, in the Board auditorium, with the various agencies and organizations that responded to the January 22-24 blizzard and the following clean-up effort. The Board and agency representatives will discuss comments that have been received from the community about what worked well and what opportunities exist for future improvement.

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March 1, 2016

3:30 p.m.

Public Hearing on SEA 79-D-071-02 (The Tea Center, LLC) to Amend SE 79-D-071
Previously Approved for a Private Club to Permit a Child Care Center and
Associated Modifications to Site Design and Development Conditions, Located on
Approximately 3.00 Acres of Land Zoned R-1 (Dranesville District)

This property is located at 999 Balls Hill Road McLean 22101. Tax Map 21-3 ((1))
66B

This public hearing was deferred by the Board of Supervisors on February 2, 2016,
to March 1, 2016 at 3:30 p.m.

PLANNING COMMISSION RECOMMENDATION:

On Wednesday, December 9, 2015, the Planning Commission voted 9-0-3
(Commissioners Hurley, Migliaccio, and Strandlie abstained from the vote) to
recommend the following actions to the Board of Supervisors:

- Approval of SEA 79-D-071-02, subject to Development Conditions dated
November 30, 2015;
- Approval of a modification of the peripheral parking lot landscaping requirement
along the Balls Hill Road frontage of the application property in favor of the
existing landscape, as shown on the SEA Plat; and
- Approval of a modification of the transitional screening and barrier requirements
along the southern property line in favor of the existing conditions, as shown on
the SEA Plat.

ENCLOSED DOCUMENTS:

Attachment 1: Planning Commission Verbatim Excerpt
Staff Report previously furnished and available online at:
<http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdfw/4505926.PDF>

STAFF:

Barbara Berlin, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ),
Mike Van Atta, Planner, DPZ

SEA 79-D-071-02 – THE TEA CENTER, LLC

Decision Only During Commission Matters
(Public Hearing held on November 19, 2015)

Commissioner Ulfelder: Thank you, Mr. Chairman. I have a decision only this evening involving a Special Exception application for a before- and after-school program in the Dranesville District for The Tea Center, LLC. Would the applicant and her representative come on down? If you will recall, at the public hearing some questions were raised about the provisions proposed – development conditions concerning the – how the school could be expanded from between 40 to 70 students. And there was expressed in the original proposed development conditions a – sort of an administrative process combined with a full operational traffic study analysis. After taking a look at that, after – at the suggestion of Commissioner Hart checking with the County Attorney's Office, it was determined that that raised some serious questions and we have revised the conditions to eliminate that. So, now what we're looking at is an application with a set of proposed development conditions that would allow a program for up to 40 students. And that's reflected in - without the additional expansion and – so that if in the future the applicant decides she wants to expand, she would have to come back with a Special Exception Amendment and would likely be required still to have the traffic analysis as part of that process. We've also cleaned up a couple of the other conditions in the proposed development conditions. So with that, I first would like to ask the applicant or her representative as to whether they would confirm for the record that you're in agreement with the proposed development conditions now dated November 30th, 2015.

Jane Kelsey, Esquire, Applicant's Agent, Jane Kelsey & Associates, Inc.: Jane Kelsey, representing the applicant. I will ask Ms. Mendis to respond to that, please.

Commissioner Ulfelder: Okay, thank you.

Mayosha H. Mendis, Applicant: Yes.

Commissioner Ulfelder: Okay, fine. Thank you very much. With that Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS APPROVAL OF SEA 79-D-071-02, SUBJECT TO DEVELOPMENT CONDITIONS DATED NOVEMBER 30TH, 2015.

Commissioner Hart: Second.

Chairman Murphy: Seconded by Mr. Hart. Is there a discussion of the motion? All those in favor of the motion to recommend to the Board of Supervisors that it approve SEA 79-D-071-02, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries. Mr. –

Commissioner Hurley: Mr. – Mr. Chairman, I need to abstain. I was not present for the public hearing.

Chairman Murphy: All right.

Commissioner Migliaccio: The same –

Chairman Murphy: Okay, Mr. Migliaccio and Ms. Hurley abstain; not present for the public hearing.

Commissioner Strandlie: Mr. Chairman?

Chairman Murphy: Yes.

Commissioner Strandlie: I was also not here – not here.

Chairman Murphy: I'm sorry?

Commissioner Strandlie: I also would like to abstain. I was not here for the hearing on November 19th.

Chairman Murphy: Okay, three abstentions.

Commissioner Ulfelder: Just before Thanksgiving.

Chairman Murphy: Mr. Ulfelder.

Commissioner Ulfelder: I also MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS APPROVAL OF THE FOLLOWING MODIFICATIONS:

- MODIFICATION OF THE PERIPHERAL PARKING LOT LANDSCAPING REQUIREMENT ALONG THE BALLS HILL ROAD FRONTAGE OF THE APPLICATION PROPERTY IN FAVOR OF THE EXISTING LANDSCAPE, AS SHOWN ON THE SEA PLAT; AND
- MODIFICATION OF THE TRANSITIONAL SCREENING AND BARRIER REQUIREMENTS ALONG THE SOUTHERN PROPERTY LINE IN FAVOR OF THE EXISTING CONDITIONS, AS SHOWN ON THE SEA PLAT.

Commissioner Hart: Second.

Chairman Murphy: Seconded by Mr. Hart. Discussion of that motion? All those in favor of the motion as articulated by Mr. Ulfelder, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries, same abstentions.

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(Each motion carried by a vote of 9-0-3. Commissioners Hurley, Migliaccio, and Strandlie abstained from the vote.)

JN

Board Agenda Item
March 1, 2016

3:30 p.m.

Public Hearing on SE 2015-SU-010 (Claudio A. Vargas) to Permit a Home Child Care Facility, Located on Approximately 2,370 Square Feet of Land Zoned PDH-3, WS and HC (Sully District)

This Property is located at 3930 Kernstown Court, Fairfax, 22033. Tax Map 45-1 ((8)) (16) 21.

PLANNING COMMISSION RECOMMENDATION:

On Wednesday, October 14, 2015, the Planning Commission voted 10-0 (Commissioners Lawrence and Murphy were absent from the meeting) to recommend that the Board of Supervisor approve SE 2015-SU-010, subject to the Development Conditions dated October 14, 2015.

ENCLOSED DOCUMENTS:

Attachment 1: Planning Commission Verbatim Excerpt
Staff Report previously furnished and available online at:
<http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdfw/4502652.PDF>

STAFF:

Barbara Berlin, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ),
Mike Lynskey, Planner, DPZ

SE 2015-SU-010 – CLAUDIO A. VARGAS

After Close of the Public Hearing

Commissioner Litzenberger: Thank you, Mr. Chairman. Mr. Vargas, would you please come and confirm on the record, do you agree with the development conditions dated October 14, 2015?

Claudio Vargas, Applicant/Title Owner: Yes, I confirm.

Commissioner Litzenberger: Thank you, you may sit down.

Vice Chairman de la Fe: Thank you.

Commissioner Litzenberger: Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND THAT THE BOARD OF SUPERVISOR APPROVE SE 2015-SU-010, AS SUBJECT TO THE DEVELOPMENT CONDITIONS CONSISTENT WITH THOSE DATED OCTOBER 14TH, 2015.

Commissioners Flanagan and Hedetniemi: Second.

Vice Chairman de la Fe: Seconded by Commissioners Flanagan and Hedetniemi. Any discussion? Hearing and seeing none, all those in favor please signify by saying aye.

Commissioners: Aye.

Vice Chairman de la Fe: Opposed? The motion carries.

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(The motion carried by a vote of 10-0. Commissioners Lawrence and Murphy were absent from the meeting.)

Board Agenda Item
March 1, 2016

3:30 p.m.

Public Hearing on SE 2015-SP-022 (Eileen Meade DBA Meade Family Daycare) to Permit a Home Child Care Facility, Located on Approximately 11,487 Square Feet of Land Zoned PDH-2 (Springfield District)

This Property is located at 9697 South Run Oaks Drive Fairfax Station, 22039. Tax Map 97-1 ((6)) 166.

PLANNING COMMISSION RECOMMENDATION:

On Thursday, January 21, 2016, the Planning Commission voted 11-0-1 (Commissioner Keys-Gamarra abstained from the vote) to recommend to the Board of Supervisors approval of SE 2015-SP-022, subject to the Development Conditions dated December 7, 2015.

ENCLOSED DOCUMENTS:

Attachment 1: Planning Commission Verbatim Excerpt
Staff Report previously furnished and available online at:
<http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdfw/4508272.PDF>

STAFF:

Barbara Berlin, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ),
Laura Arseneau, Planner, DPZ

SE 2015-SP-022 – EILEEN MEADE d/b/a MEADE FAMILY DAYCARE

Decision Only During Commission Matters
(Public Hearing Held on December 9, 2015)

Commissioner Murphy: I have two decisions only this evening. The first one I would like to do is the Meade Daycare Center. This was a public hearing that we had on December 9th. Ms. Meade has a daycare facility but she is taking advantage of the fact that now daycare centers in residential communities can increase their children's capacity from seven to twelve. There was an application that was filed. Ms. Meade and the homeowners association, I think they got off to a little rocky start, but I understand that they are working together now on this particular application. And during the public hearing I asked Ms. Meade if, notwithstanding the Board of –, the Planning Commission's recommendation, if in fact the Board of Supervisors denied this application, would she continue to have a daycare center for seven children which she has now and which is a legal - a legal application, and she answered yes. So this daycare center is going to be in this community for a long time. And so I asked the members of the community who came and spoke in opposition to this special exception if they would take home with them the copies of the development conditions which, if this application were approved, those development conditions would be in effect and would ameliorate some of the concerns that they had, and I asked them to take a copy of the development conditions home. We had it right here at the staff table and I asked them to please communicate with me before the decision only and tell me what you think: Would you rather have a daycare center with 7 children or would you rather have a daycare center with 12 children with development conditions which would ameliorate the perceived impact in the neighborhood. I have not heard from anyone. So I am going to go tonight and I'm going to make the decision – a recommendation to the Board of Supervisors on this special exception. I do want to say at the outset that during the public hearing Mr. Streich, I believe his name is, who was the attorney for the homeowners association, argued that the Planning Commission was obligated under *Virginia Code* Section 55-513.2 to enforce the policy that he articulated on behalf of the homeowners association and recommended the denial of the application. One of the first things we did after the public hearing is we referred his study at his request to the County Attorney who has since answered that after reviewing the *Virginia Code* cited above in detail the County Attorney concluded that the statute has no bearing on the Planning Commission's review of the special exception application for home child care. So it is legally sound. The action we are about to take is legally sound this evening. This application is in conformance with the Comprehensive Plan. It is also in conformance with the applicable zoning ordinances that affect child care facilities in residential areas, so I'm going to recommend to the Board that this application be approved. But before I do that I'd like Ms. Meade to please come down if she's here. Ms. Meade? Hopefully you are here in this crowd of Dranesville people so we can have you come down and take action on this application. Would you please state your name for the record and your address and would you agree that you have read the development conditions, you understand the development conditions, and that you will abide by the development conditions.

Eileen Meade, Applicant: My name is Eileen Meade. I live at 9697 South Run Oaks Drive, Fairfax Station, Virginia 22039. I do agree and I will abide by the development conditions.

Commissioner Murphy: Okay, thank you very much. So therefore, Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS APPROVAL OF SE 2015-SP-022, SUBJECT TO THE REVISED DEVELOPMENT CONDITIONS DATED DECEMBER 7TH, 2015.

Commissioners Hart, Lawrence, and Strandlie: Second.

Vice Chairman de la Fe: Seconded by Mr. Hart and –

Commissioner Lawrence: Mr. Lawrence, with pleasure.

Vice Chairman de la Fe: Mr. Lawrence and Ms. Strandlie. Okay, any discussion? Hearing and seeing none all those in favor please signify by saying aye.

Commissioners: Aye.

Vice Chairman de la Fe: Opposed? The motion carries. Thank you very much.

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NOTE: Commissioner Keys-Gamarra did not abstain during this motion; however, during the motion for the following public hearing (RZ/FDP 2015-SP-007, MRD PROPERTIES, LLC), her abstention was noted by the Planning Commission Chairman.

Vice Chairman de la Fe: One question, on the previous one on the Meade case, Ms. Keys-Gamarra you abstained on that one, right; because you were not at the Commission then. Yes? Right, I just want to make that clear.

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(The motion carried by a vote of 11-0-1. Commissioner Keys-Gamarra abstained from the vote.)

TMW

Board Agenda Item
March 1, 2016

3:30 p.m.

Public Hearing on RZ 2015-SP-007 (MRD Properties LLC) to Rezone from R-1, WS to PDH-3, WS to Permit Residential Development with an Overall Density of 2.4 Dwelling Units Per Acre and Approval of the Conceptual Development Plan, Located on Approximately 9.9 Acres of Land, Comprehensive Plan Recommended Fairfax Center Area 2.5 du/ac at Overlay Level (Springfield District)

This Property is located on the North side of Westbrook Drive Opposite the Intersection with Devin Green Lane. Tax Map 55-1 ((8)) H and 55-2 ((3)) G1 and G2.

PLANNING COMMISSION RECOMMENDATION:

On Thursday, January 21, 2016, the Planning Commission voted 9-0-2 (Commissioners Keys-Gamarra and Migliaccio abstained from the vote and Commissioner Sargeant was not present for the meeting) to recommend the following action to the Board of Supervisors:

- Approval of RZ 2015-SP-007 and the associated Conceptual Development Plan, subject to the execution of proffers consistent with those dated January 20, 2016; and
- Direct the Director of the Department of Public Works and Environmental Services to permit a deviation from the Tree Preservation Target.

In a related action, on Thursday, January 21, 2016, the Planning Commission voted 9-0-2 (Commissioners Keys-Gamarra and Migliaccio abstained from the vote and Commissioner Sargeant was not present for the meeting) to approve FDP 2015-SP-007, subject to the Development Conditions dated December 22, 2015, and the Board of Supervisors' approval of RZ 2015-SP-007 and the associated Conceptual Development Plan.

ENCLOSED DOCUMENTS:

Attachment 1: Planning Commission Verbatim Excerpt
Staff Report previously furnished and available online at:
<http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdfw/4510650.PDF>

STAFF:

Barbara Berlin, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ),
Carmen Bishop, Planner, DPZ

RZ/FDP 2015-SP-007 MRD PROPERTIES, LLC

Decision Only During Commission Matters
(Public Hearing Held on January 14, 2016)

Commissioner Murphy: Yes, also I have a decision on SE, excuse me, RZ and FDP 2015-SP-007 Meade Properties. This is an application in the Springfield District on 9.99 acres in the Springfield District again in the Fairfax Center area.

Commissioner Sargeant: Mr. Chairman, I'm sorry to interrupt. As you know I recused myself from this public hearing in this case from the last meeting due to an affidavit issue and I'm going to recuse myself from vote as well.

Commissioner Murphy: Okay, thank you. This was a residential 2.5 units per acre which is the overlay district in the Fairfax Center area. This application is in an area where we always get a lot of citizen comments and I'm very thankful to get those comments but I think in this particular case this application should be supported for a number of reasons. First of all, it is in conformance with the Comprehensive Plan. They requested 2.4 dwelling units per – per acre and the comprehensive plan calls for a maximum 2.5 its close but it's still in conformance with the plan. They have addressed successfully the Fairfax Center residential checklist. They have come in they are in conformance with the applicable zoning ordinances, and the PDH provisions and they maxed out basically in the residential development criteria. One of the issues that was discussed in the staff report and this is an issue that sometimes is misinterpreted - is the context of the application. Does it fit in with the neighborhood? and the folks sort of took a position that it doesn't fit in with the neighborhood because the lots are smaller than the lots next door or the next down the street and so forth and although that may be true this application has a very, very comprehensive tree preservation plan. It also have 40 percent open space so although the density is a little higher but still in conformance with the Comprehensive Plan the application has a tremendous amount of open space that I think will be an attractive situation for this particular part of town. Also, they have a very comprehensive set of proffers and you received a new set tonight and the only addition to that is a proffer that would restrict putting as we call them popsicle stick – popsicle stick signs on the streets in the neighborhood telling, you know, these house are up for sale and so forth and the others are just as I understand it just typos that have been, have been have been corrected so this is almost the same as the rezoning, - the proffers that are in the rezoning and development conditions that are in the rezoning application. They also have, have proffered to improve Westbrooke Drive in front of the site the sidewalks and so forth it has, as I said, a tree preservation plan. It has addressed the request for funding in the Fairfax Center area for residential property to contribute to the housing fund. It has a generous donation of 82,000 thousand dollars plus to the schools and also a very generous donation of 61,000 thousand dollars to parks. So it is in conformance with the Comprehensive Plan the proffers are very comprehensive. Also one of the things I would like to clear up one of the issues that was raised was at Westbrooke Drive. West Brook Drive no question about it, is a rural road. Maybe one of the few left in Fairfax County in this part of town. But we have rural roads all over the place and I know this one has been a bone of contention for a long time. We are trying to do something about it but there's nothing in the VDOT plan Or in the Fairfax County Plan that -has the funding to do something with this road. So we are stuck with this road and its

configuration with this development will help that out by doing a lot of frontage improvements-improvements in front of the site. But someone said there are a lot of accidents on the road and I just want to make sure that I clarify that as far as the police reports are concerned, in 2015, there was an accident that involved a vehicle approaching the downhill curve, lost control on icy, on the icy roads and skidded into an oncoming lane striking an oncoming car. There were no injuries. The second, and only second reported in 2015, was a crash at the Stringfellow Road intersection involved, involving a pedestrian who had been drinking and was wearing headphones and dark clothing who went out for a walk and was hit by a car turning from Stringfellow Road onto West Brook and only minor injuries occurred. Now it's sad that those things happen but this is not a road problem. Ice on the road is all over the county. Someone in this particular situation gets hit by a car, we are very sorry to hear about that but that's, you can't blame that on the road. So therefore, having said all that Mr. Chairman, I MOVE –first I'd like to have the applicant please come forward because we do have a special exception here. FDP -

Sara Mariska, Esquire, Applicant's Agent, Walsh, Colucci, Lubeley, and Walsh: We have read and agree to abide by the conditions that are contained in the staff report.

Commissioner Murphy: Okay, thank you very much. Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS TO APPROVE RZ 2015-SP-007 AND THE ASSOCIATED CONCEPTUAL DEVELOPMENT PLAN AND SUBJECT TO THE EXECUTION OF PROFFERS CONSISTENT WITH THOSE DATED JANUARY 20TH, 2016.

Commissioner Hart: Second.

Vice Chairman de la Fe: Seconded by Mr. Hart. Is there any discussion? Hearing and seeing none, all those I favor please signify by saying aye.

Commissioners: Aye.

Commissioner Migliaccio: Mr. Chairman, abstain, I was not here for the public hearing.

Vice Chairman de la Fe: Okay. Motion, motion carries.

Commissioner Murphy: I MOVE THAT THE PLANNING COMMISSION APPROVE FDP 2015-SP-007, SUBJECT TO THE DEVELOPMENT CONDITIONS DATED DECEMBER 22ND, 2015, AND THE BOARD OF SUPERVISORS' APPROVAL OF RZ 2015-SP-007 AND THE ASSOCIATED CONCEPTUAL DEVELOPMENT PLAN.

Commissioner Hart: Second.

Vice Chairman de la Fe: Seconded by Mr. Hart. Any discussion? Hearing and seeing none, all those in favor please signify by saying aye.

Commissioners: Aye.

Vice Chairman de la Fe: Same abstention.

Commissioner Murphy: Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND THAT THE BOARD OF SUPERVISORS DIRECT THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES TO PERMIT A DEVIATION FROM THE TREE PRESERVATION TARGET.

Commissioner Hart: Second.

Vice Chairman de la Fe: Seconded by Mr. Hart. Any discussion? Hearing and seeing none, all those in favor please signify by saying aye.

Commissioners: Aye.

Vice Chairman de la Fe: Opposed? The motion, same abstention, carries.

Commissioner Murphy: Thank you very much and I want to thank Ms. Bishop, as always she brings with us always interesting, brings to us always interesting applications. She always does a wonderful job and I really appreciate it, thank you very much.

Vice Chairman de la Fe: One question, on the previous one on the Meade case, Ms. Keys-Gamarra you abstained on that one right because you were not at the Commission then, yes. Right, I just want to make that clear.

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(The motion carried by a vote of 9-0-2. Commissioners Keys-Gamarra and Migliaccio abstained. Commissioner Sargeant was not present for the meeting.)

TMW

Board Agenda Item
March 1, 2016

3:30 p.m.

Public Hearing on PCA 2011-PR-023/CDPA 2011-PR-023 (Cityline Partners LLC) to Amend the Proffers and the Conceptual Development Plan Associated with RZ 2011-PR-023, Previously Approved for Mixed-Use Development (Hotel and Retail), to Permit Mixed-Use Development (Multi-Family Residential and Retail) and Associated Modifications to Proffers and Site Design with an Overall Floor Area Ratio of 3.09, Located on Approximately 2.0 Acres of Land Zoned PTC (Providence District)

This property is located on the South side of Westpark Drive, at its intersection with Jones Branch Drive. Tax Map 29-4 ((7)) 2A.

The Board of Supervisors deferred this public hearing from the February 16, 2016, meeting until March 1, 2016, at 3:30 p.m.

PLANNING COMMISSION RECOMMENDATION:

The Planning Commission public hearing was held on February 4, 2016, and the Commission deferred the decision to February 25, 2016. The Commission's recommendation will be forwarded to the Board of Supervisors subsequent to that date.

ENCLOSED DOCUMENTS:

Attachment 1: Planning Commission Verbatim Excerpt
Staff Report previously furnished and available online at:
<http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdfw/4513469.PDF>

STAFF:

Barbara Berlin, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ),
Suzanne Wright, Planner, DPZ